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THE UNIVERSITY OF ALBERTA

THE CAREER MATURITY AND ATTITUDES TOWARD WORK OF RURAL AND URBAN GRADE 12 STUDENTS

BY

© JUDI LAURIKAINEN

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF M.Ed.

IN

COUNSELLING PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL 1986

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled The Career Maturity and Attitudes Toward Work of Rural and Urban Grade 12 Students, submitted by Judi Laurikainen in partial fulfilment of the requirements for the degree of M.Ed. in Counselling.

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Date: July 17, 1986

Abstract

This study investigated the career maturity and work attitudes of rural and urban grade 12 students. Two hundred and thirty-four (234) grade 12 students from three rural schools in Central Alberta (n=88) and two urban high schools in Edmonton (n=146) completed the Career Development Survey (CDS), the Attitudes Toward the World of Work (ATWOW) Inventory, a Background Information Sheet and a Student Information Questionnaire (SIQ). CDS and ATWOW scores were compared, using the analysis of variance technique, for rural and urban, male and female students enrolled in academic, business, general and technical curricula programs. Analysis of CDS scores revealed few gender or location differences. Curriculum program seemed to have the most influence on career maturity scores. Academic students obtained the highest scores on the CDS, while technical students scored significantly lower than students in other programs on all five subtests. Analysis of ATWOW scores revealed a number of significant gender differences. A few location differences were also evident, but no main effects were noted on ATWOW scores as a factor of curriculum program. Information obtained on the SIQ and the Background Information Sheet was used to assist in data analysis and interpretation of results. The theoretical and practical implications of the research findings were discussed.

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CHAPTER I

Introduction

Nature of the Problem

In a recent study of 3,600 Canadian teenagers (Bibby & Posterski, 1985), 68% of the participants indicated that the problem of "what I am going to do when I finish school" bothered them "a great deal" or "quite a bit". Unemployment was regarded a "very serious" social problem by 61% of the teenagers surveyed. As one male grade 12 student in a small northern Alberta community stated, "My major problem is what to do after I graduate. If I can't get a summer job, I can't go to college, and my plans will be ruined. I need a job and there aren't many jobs to be found" (Bibby & Posterski, p.57).

Youth unemployment is currently being regarded as a very serious social issue. As Alberta Manpower (1985a) reported, aside from the economic, political and financial repercussions of youth unemployment, there are serious social, emotional, psychological and physical effects. Recent Statistics Canada figures revealed that the unemployment rate among 15-24 year olds ranged from 14.7% to 30.9% across the provinces, averaging 18.1% across Canada (Statistics Canada, 1986b). The effects of joblessness on

youth are distressing. As Herr (1984) outlined, "labor market problems among youth do not simply age out but instead are predictive of labor market problems in early adulthood and beyond" (p.84).

As a result of the high rate of youth unemployment, concern over the school - work transition has risen in recent years. Alberta Education has addressed the need for quality education which will ensure effective bridging of the gap between high school and work or further education in a number of recent publications focusing on the need for comprehensive guidance and counselling services (Alberta Education 1984a, 1984b, 1985a). Alberta Education developed a Career Development model for use in Alberta schools which is described in these publications and in articles by French, Stewart & Pickering (1985) and Stewart (1985).

Although attempts seem to have been made by educators to prepare students for the work world, a number of authors have outlined that many Canadian youth lack relevant skills, knowledge and affective work compentencies such as desirable work habits, values and attitudes (Alberta Manpower, 1985a; Borgen and Amundson, 1984, Maynard, 1985). However, Kalachek (cited in Kirsh, 1983) outlined that youth are "hit hard" in times of economic recession "due to the lack of job opportunities, and not an erosion of

their work ethic" (p.35). Research is needed to empirically investigate the career maturity and work attitudes of Alberta youth, as these factors have been linked to employability (Herr, 1984) and job survival (Beach & Gedeon, 1980).

Much of the current literature on youth unemployment, school - work transition and career development has focused on urban youth. Despite the suggestion that rural, inner city and minority youth comprise the three segments of the labour force that will experience the bulk of the youth unemployment during the 1980's (Bender & Petty, 1980), a limited amount of research has been done to investigate aspects of the career development of rural youth (Lee, 1984b). Some Canadian research has been conducted, but much of the existing research has been carried out in the United States. While investigations in the United States and in other countries do provide us with information about rural youth and differences between rural and urban youth, the extent to which these studies can be generalized to the students in Alberta, and Canada in general, is unknown to the present author. Further, the "rural" and "urban" areas studied are often not operationally defined and/or clearly described, which again limits the extent to which generalizations can be made. For example, in the studies by Lee (1984a, 1984b, 1984c) no information was provided

regarding the name, population, distance from major centres, economy or physical setting of the rural area studied. This demonstrates the need for research with clearly defined samples which will illuminate regional similarities and differences.

Crites (1976), Herr (1984) and Super (1983) have recognized career maturity and work attitudes as vital components of career development and employability. Super (1982) listed attitudes and values as "personal determinants" of an individual's career development. He also emphasized the importance of evaluating a person's "readiness to assess abilities and interests, and of readiness to make self and occupational matching decisions" (Super, 1983, p.559). According to Super, "readiness" involves both work salience and career maturity, in that order.

There are a plethora of factors which may influence the career maturity and work attitudes of high school students. Since it is beyond the scope of the current investigation to explore the effects of numerous factors, only three variables will be examined in detail: gender, curriculum program and location.

The sex of the individual has been shown to highlight differences in career maturity (Chodzinski, 1983; Herr & Enderlein, 1976; Khan & Alvi, 1985, 1985; McNair & Brown,

1983; Super & Nevill, 1984; Thompson, Lindeman, Super, Jordaan & Myers, 1981). Females displayed higher levels of career maturity in all of the above studies utilizing standardized measures of this construct. However, other studies showed that males displayed greater career maturity (Achebe, 1982), especially in the area of occupational aspirations (Danziger, 1983; Dorwan, cited in West & Newton, 1982). Lee (1984c), Maguire, Romaniuk & MacRury (1982), Pautler & Lewko (1985) and Perrone (1973) also found differences in the work values and attitudes toward work of male and female high school students. In general, males tended to hold more extrinsic work values (eg., money, job security, status) than females. Further investigation of gender differences in these aspects of career development is required.

Curriculum program has also been shown to influence career maturity and work attitudes. Research has shown that students in general programs are less career mature than their peers in academic and business programs (Herr & Enderlein, 1976; Khan & Alvi, 1984, 1985) and that these differences persist into young adulthood (Herr, Weitz, Good, & McCloskey, cited in Herr & Cramer, 1984). Academic students were also found to be more career mature than students in business and technical categories (Khan & Alvi, 1985; Herr & Enderlein, 1976). Kapes & Strickler (1975) and

Maguire, Romaniuk & MacRury (1983) also reported differences in work attitudes relating to curriculum program. Maguire et al. (1983) found that "generally speaking the Technical, Academic and Business groups felt better prepared [for work] than the other groups" (p.10), which comprised students in General, Undecided and No Main Emphasis Categories. Research is required to shed further light on the impact of curriculum program on career development.

Studies have shown location, or place of residence, to be an additional factor influencing the career development of students. A number of researchers have investigated the educational and occupational aspirations of rural youth and have found that, generally, urban students tend to have higher educational and/or occupational aspirations than rural youth (Breton, 1972; Middleton & Grigg, 1959; Turney, Sinclair & Cairns, 1980). Borman (1981), Kammer (1985), Long (1982) and Rich (1979) have outlined that rural youth may lack exposure to, and knowledge of, many occupations, therby limiting them in their ability to make choices that are as varied and optimal as those of urban youth. However, Super & Overstreet (1960) found the rural grade 9 boys in their study to be more career mature than urban ones, possibly because the rural boys wanted to become farmers and had farming work experience. Since 1960 there has been a great deal of technological advancement in the now troubled

agricultural industry, and farm workers are increasingly being replaced by machinery. This may have effected the career maturity of rural youth over the last two decades.

Little research appears to have been done to investigate the work attitudes of students in rural locations. Miller & Crader (1979) and Savage (1983) reported differences in the value perceptions of work of rural and urban students in the United States. However, further research is required to learn more about the career development of students living in rural areas of Alberta.

Statement of the Problem

This study was designed to gain information on the career maturity and attitudes toward work of rural and urban grade 12 students in Alberta. More specifically, the purpose of this investigation was to ascertain the extent to which grade 12 male and female, urban and rural students enrolled in technical, academic, business and general curricula programs differ in their attitudes toward work and in their levels of career maturity.

This study was designed to provide data relative to the following seven questions:

1) Are there significant differences between the mean career maturity scores and the mean attitude toward work scores

of male and female grade 12 students in rural schools?

2) Are there significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in academic and general curricula programs in rural schools?
3) Are there significant differences between the mean career maturity scores and the mean attitude toward work scores of male and female grade 12 students in urban schools?
4) Are there significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in technical, academic, business and general curricula programs in urban schools?
5) Are there significant differences between the mean career maturity scores and the mean attitude toward work scores of male and female grade 12 students?
6) Are there significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in academic and general curricula programs?
7) Are there significant differences between the mean career maturity scores and the mean attitude toward work scores of rural and urban grade 12 students?

Definition of Terms

The following operational definitions were adopted for use in the present study:

Career Development: "An ongoing process of awareness, exploration and adjustment to the world of work that takes place throughout life. This process includes home, school and community experiences that influence an individual's self-concept, life style and occupational choice" (Alberta Education, 1984a, p.6).

Career Maturity: The possession of career skills in five areas measured by the Career Development Survey (Khan & Alvi, 1984): Self-Evaluation and Development, Career-Awareness, Career Decision-making, Employment-Seeking, and Work-Effectiveness. These are similar to the Career Maturity components outlined by Thompson et al. (1981) and the College Entrance Board Exam (1978).

Attitudes Toward Work: Thoughts and beliefs about working that are dependant on the social and economic context that students are likely to be entering at the time of their transition to the work world. These attitudes or opinions may change from one month to the next as a result of personal growth or experience (Maguire et al., 1983).

Urban area: An area having a population concentration of 1,000 or more and a population density of 400 or more per

square kilometre (Statistics Canada, 1981, p.106).

Rural area: All territory lying outside an "urban area" (as defined above), (Statistics Canada, 1981, p.104).

Urban Student: A student attending a school situated in an urban area.

Rural Student: A student attending a school situated in a rural area.

Academic Program: A program which leads to a matriculation standing and eligibility for the Advanced High School Diploma[a] issued by Alberta Education.

General Program: A program which leads to eligibility for the General High School Diploma[a] issued by Alberta Education.

Business Progam: A program which leads to eligibility for a Business Education Certificate[a] issued by Alberta Education.

Technical Program: A program which leads to eligibility for a Vocational Certificate[a] issued by the school.

[a] Criteria are outlined in Appendix A.

CHAPTER II

Review of the Literature

Youth Unemployment

As Ginzberg wrote,

> To want to work and be unable to find it is painful at any age, but youth unemployment has particular effects, both on the individual and on society. A lengthy period of frustration and enforced idleness when a person first enters the labour force can disable him or her psychologically and in terms of experience for later employment... (cited in Phillips, 1984, p.20)

According to recent Statistics Canada figures, the unemployment rate among 15-24 year olds ranged from 14.7% to 30.9% across the provinces, averaging 18.1% Canada wide (Statistics Canada, 1986b). This accounts for 37.6% of the total unemployment in Canada (Statistics Canada, 1986a). Unfortunately, this scenario is unlikely to improve in Alberta. With the current slump in the Agriculture, Labour and Petroleum industries, Canadian economists are predicting "rising unemployment and dwindling growth [in Alberta] for two years" (Hryciuk, 1986).

In view of the high levels of youth unemployment, one might suspect that students would be opting for further education. However, Alberta Manpower recently reported that 55.2% of youth currently in the labour force have no post-secondary education or training (cited in French et al., 1985). Friesen (1981) conducted a longitudinal study of Edmonton high school students and found that plans for attending university increased only one percentage point since 1969. In 1981, 56.3% of females planned to attend university, compared to 45.8% of males. Bibby & Posterski (1985) revealed that while 37% of the 19 year old youths surveyed saw themselves as "university bound", only 15% of the students actually attended university following graduation from high school. According to the Ontario Teachers Federation (O.T.F.) (1983), research has shown that early school leavers have the poorest record in securing and maintaining employment. Although no recent Alberta statistics were available, Education statistics in Ontario revealed that in 1981, 40% of Ontario secondary school students left school before obtaining a diploma (cited in O.T.F., 1983). Phillips (1984) reported that studies showed that many of these students work sporadically or never work, and that "they constitute a growing body of permanently unemployed or unemployable" (p.29). However, as Kirsh (1983) outlined, "while youth who leave school early are

more likely to be unemployed than are graduates, schooling itself is no longer a guarantee of entry into the labour force" (p.35).

A number of authors have discussed the effects of joblessness on youth (Alberta Manpower, 1985a; Borgen & Amundson, 1984; Herr, 1984; Kirsh, 1983; Phillips, 1984; Tiggemann & Winefield, 1984; Winefield & Tiggemann, 1985). Tiggemann & Winefield's (1984) statement of the effects of unemployment seemed to summarize what is evidenced in the literature:

> Descriptive accounts of the unemployment experience present a composite picture of the unemployed as bored lonely and depressed and, over time, as displaying a diminishing motivation to do anything. Perhaps the most consistently noted effect is that of a loss of morale or self-esteem, the individual losing his or her self-respect and sense of personal worth (p.34).

As Herr (1984) outlined, teenage unemployment among out-of-school youth carries with it a "hangover effect" which may cause later labour market problems in early adulthood and beyond, and hamper work attitudes.

Much of the above research has focused upon early school leavers, who constitute one subgroup likely to experience unemployment problems. Borgen & Amundson (1984) have outlined the need for research on the extent to which

students leaving high school understand and anticipate the nature of the job market that they are about to enter. While the issues of what to do after completing high school and unemployment represented serious social concerns of Canadian youth, the students continued to be optimistic about their own personal employment prospects. Bibby & Posterski (1985) found that over 70% of students maintained that they would be able to secure a good job once they had completed their education. Since 55.2% of the Alberta youth labour force begins to work immediately after high school without pursuing further education, the school system has an important role to play in easing this transition between school and work.

The School-Work Transition: The Challenge for Alberta Schools

Concern over the school-work transition has escalated in recent years as a result of the high rate of youth unemployment. While the blame has been distributed among schools, government, business and industry, schools seem to be common targets for criticism. As an O.T.F. (1983) report outlined,

> The persistance of high youth unemployment side by side with shortages of skilled workers has attracted

> public attention and prompted numerous studies of the causes of unemployment, the role of the schools in vocational preparation, and the efficacy of industrial training programs (p.1).

According to this report, job training was the dominant priority that the Ontario public assigned to the high schools.

Alberta Education has recognized the need for quality education which will assist in bridging the gap between high school and work or further education. A recent publication by Alberta Education, Guidance and Counselling Services in Alberta Schools (1984b), outlined that one of the goals of basic education is that students "acquire knowledge and develop skills, attitudes and habits required to respond to the opportunities and expectations of the world of work" (p.53). The need for comprehensive guidance and counselling services has also been addressed by Alberta Education in Career Development Services for Alberta Students (1984a). Alberta Education (1984a) revealed that ~~the need~~ for providing students with career awareness, information and skills is borne out by the current high levels of youth unemployment, stating,

> Many young people in Alberta have great difficulty in making the transition from school to the workplace. Difficulties in finding a first job, frequent job

changes, a poor job market for their age group, all testify to the urgency of finding a solution to this escalating problem (p.5).

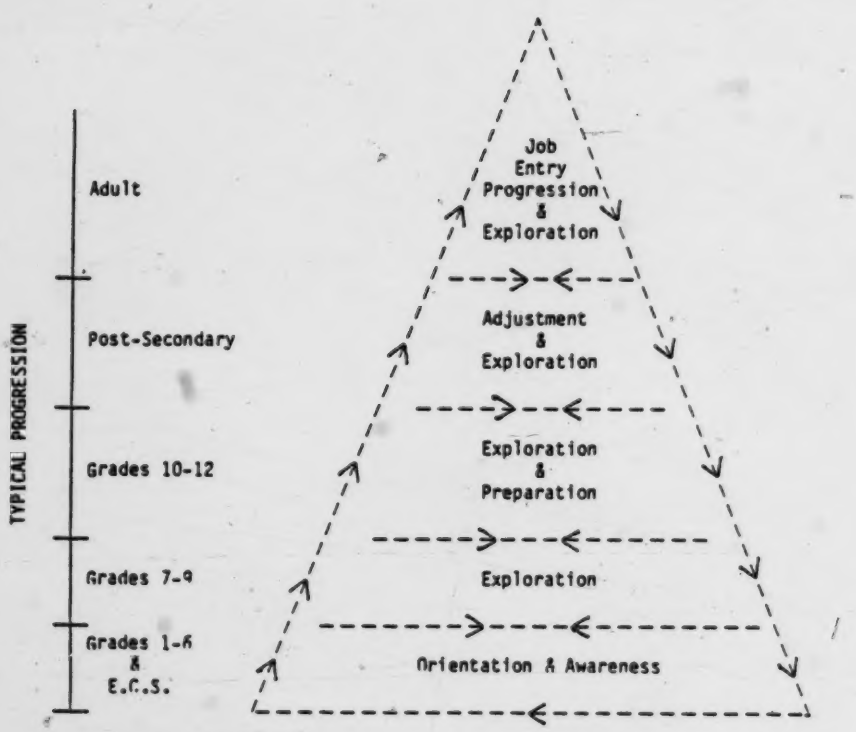
Career Education Model

The model of Career Development used by Alberta Education outlines stages of career development as they occur from the start of school through to adulthood (Alberta Education, 1984a, p.8). This model, as illustrated in Figure 1, reflects the maturational process inherent in career development - "the potential of the individual to progress through the stages at a more rapid rate, to remain in their present stage until ready to progress to the next stage or to return to an earlier stage of career development" (p.7). However, Forestell (1985) criticized that no mention is made in this model of the "readiness" or career maturity of the student moving from one stage to another.

Alberta Education (1984a) also outlined the various components required for the delivery of comprehensive career development services to students (see Figure 2). Due to the fact that work-related experience is being demanded by an increasing number of employers, work possibilities (both inside and outside the school) which allow students

Figure 1

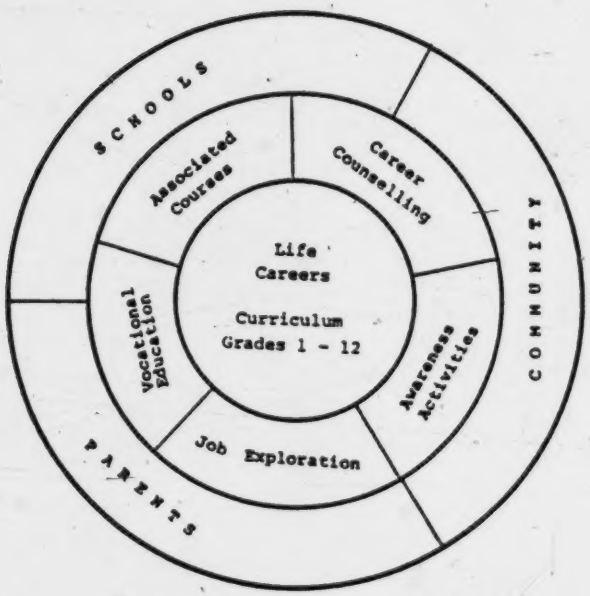
Model of Career Development



Note. From Career Development Services for Alberta Students (p.8) by Alberta Education, 1984a, Special Education Services Branch.

Figure 2

A Model for the Delivery of Student Career Development Services



Note. From Career Development Services for Alberta Students (p.15) by Alberta Education, 1984a, Special Education Services Branch.

opportunities for active job exploration are important. Some options outlined by Alberta Education (1984a) include volunteer work, hobbies, work experience, work study and part-time jobs. A number of authors have described and commented on the merits of cooperative education in Alberta (Young, 1985) and in other parts of Canada (Maynard, 1985; O.T.F., 1983; Studd, 1984). Industrial Education courses, as outlined by Alberta Education (1983), reportedly provide students with practical experience and occupational skills which should enhance their career development. Some Alberta high schools also offer an Academic-Occupational Program for students who are experiencing difficulties in meeting the demands of the regular program. The occupational courses in this program are designed to "prepare students for direct entry into employment and/or further training" (Alberta Education, 1985b, p.36).

Alberta Education (1984b) and other authors (French et al., 1985; Minister of State (Youth), 1984) have addressed the need for educating students on the basic causes and nature of unemployment, as well as its effects on the individual and the economy. French et al. outlined the general objectives of a core career development curriculum which included these topics and others relating to self and work.

Despite the apparent efforts by Alberta educators to

enhance the career development of high school students, Alberta Manpower (1985a) recently reported that unfortunately many youth lack relevant work experience, job search and work skills, adequate understanding of the work world and knowledge of how to function in it, or sufficient education or experience to be competitive in today's job market. Borgen & Amundson (1984) also found that the unemployed Canadian youth in their study seemed to lack career maturity.

Urban and Rural Youth

Much of the current literature on youth unemployment, school-work transition and career development has focused on urban youth. As Lee (1984b) wrote, "a careful examination of research literature reveals a paucity of studies that investigate the relationship among important variables in the career development of rural youth" (p.177). Bender & Petty (1980) suggested that minority, inner city and rural youth were the three segments of the labour force that would experience the bulk of youth unemployment during the 1980's. While some Canadian research has been done which investigated aspects of the career development of rural youth (Anisef, Paasche & Turrittin, 1980; Breton, 1972), most of the existing research has been conducted in the United States (Dunne, Elliott & Carlsen, 1981; Kammer, 1985;

Lee, 1984a, 1984b, 1984c). The studies done in the United States and in other countries such as Nigeria (Achebe, 1982), England (West & Newton, 1982) and Australia (Turney et al., 1980) do shed some light on rural/urban differences in aspects of career development. However, the extent to which findings of these studies can be generalized to the Canadian milieu is unknown to the present author. In many of the above studies conducted in Canada and other countries, the "rural" and "urban" samples were not operationally defined and/or clearly described, which again limits the extent to which generalizations can be made. As Moriarty (1981) outlined,

> A rural environment tends to defy any simplistic definition. However, a careful analysis of the culture, history, ethnic heritage, physical setting, economy and the educational patterns of a rural environment provide the basic ingredients which shape the unique behaviours of the youth who reside there (p.11).

Career Development and Employability

Career maturity and attitudes toward work have been recognized as important components of career development and employability as outlined by Crites (1976), Herr (1984) and

Super (1983). Super (1983) stated that many of the earlier theories of career development were based on Matching Models (Holland, 1973; Roe, 1956; Super, 1957; Strong, 1943), and that these models matched "people and jobs in order to predict and ensure them success and satisfaction" (p.555). Subjective and objective data on abilities, interests and values are used to carry out the matching procedure. Super has pointed out that the matching model makes the following unwarranted assumptions: (a) that the students or adults who are assessed are all sufficiently career mature to have mature and stable traits, and (b) that they are able to use the self knowledge provided by the assessment process in making career decisions (p.557). Super's more recent assessment model (1983) emphasized the process of career decision-making within a developmental context. According to Super (1983),

> readiness for vocational and related career-decision making requires, 1) a sense of autonomy, time or future perspective, and self-esteem, 2) a committment to work or to a self-actualizing career (work salience), 3) career maturity...and then 4) the search for a good match of developing interests, values and aptitudes with those characterizing a field of work and other life career roles (p.562).

It is to assess an individual's committment to work and

career maturity that instruments such as the Career Maturity Inventory (CMI) (Crites, 1978), the Career Development Survey (CDS) (Khan & Alvi, 1984), the Salience Inventory (SI) (Super & Nevill, 1982) and the Career Development Inventory (CDI) (Thompson, Lindeman, Super, Jordaan & Myers, 1981) were developed.

Herr (1984) has defined employability as "a composite set of traits and skills that permits the individual to meet the demands of the workplace" (p.79). The components of employability have been outlined by Herr, and include general and specific employability skills. General employability skills include affective work competencies (work attitudes, values and habits), industrial discipline (knowledge and skills associated with effective employer/ employee relations, understanding of life in an organization, pride in work, etc.) and self-management (skills that relate to career planning, job search and access) (p.80). Specific employability skills comprise "occupational or firm-specific task skills" (p.82). All of these components are important in making a successful transition to the world of work.

Crites (1976) described the outcomes of work-entry problems of youth as "thwarting conditions" (p.108). Herr (1984) stated that these thwarting conditions were of two classes: (1) those dealing with job performance (eg., responsibility, maturity, attitudes, values, habits,

adjustment to peers and supervisors), and (2) those dealing with career planning, job entry, and management problems (eg., job seeking, interviewing and test taking, occupational aspirations and job expectations) (p.83).

Career Maturity

There appears to be growing recognition of the fact that career maturity is a "complex, multi-dimensional construct" (Super & Thompson, 1979, p.6) which encompasses cognitive and affective components of career development. Much of the research has focused on the identification and definition of its basic components, or on assessing variables associated with, or having an influence on, this construct. Research points to the existence of individual differences in career maturity, and to its increase with age (Chodzinski, 1983; Herr & Enderlein, 1976; Jordaan & Heyde, 1979; Noeth & Prediger, 1978; Thompson et al., 1981).

There are a number of factors which may influence and possibly account for individual differences in the career maturity of high school students. A number of these factors will be discussed.

The Influence of Gender

The sex of the individual has been shown to be a factor in career maturity. Females displayed higher levels of career maturity in studies which used the following measures of the construct: CDI (Super & Nevill, 1984; Thompson et al., 1981); CDS (Khan & Alvi, 1984, 1985); CMI (Chodzinski, 1983; Herr & Enderlein, 1976; McNair & Brown, 1983). However, Herr et al. (cited in Herr & Cramer, 1984) revealed that earlier sex differences found in the Herr & Enderlein (1976) investigation favouring females had disappeared by ages 24-27. Achebe (1982) reported that the grade 7-10 Nigerian boys in her study were more career mature in the areas of job knowledge and vocational attitudes as measured by the CDI.

In examining the educational and occupational aspirations of students, aspects of career maturity, differences again occur. Dunne et al. (1981) found that with the rural youth she studied, female educational and occupational aspirations were higher than those of males. While Dunne et al. stated that "there is evidence that young rural women are aspiring to a broader range of jobs than earlier research indicated" (p.64), they also reminded us that aspirations are not attainments and that "aspirations do not correlate as well with achievements for women as they do for men" (p.64). Danziger (1983) found that male and

female students aspired to a similar mean level of educational attainment (some college education), but males' occupational aspirations were higher and more variable than those of females. Contrary to most of the above findings, Dorwan (cited in West & Newton, 1982) suggested that males are better prepared for the world of work than females. He outlined that "boys' vocational aspirations are usually well developed by middle adolescence, while girls hold less articulated occupational aims and are less well informed about the educational requirements for the jobs they choose" (p.179).

Sex-role socialization has been cited as an important influence in the career development of women (Mischler, 1975; Osipow, 1975). Employment and Immigration Canada (1983) has reported a 70.4% increase in the female labour force since 1970 (based on 1981 statistics). Related to this increased participation of women in the labour force is the question of the relationship of work to family life. Jobs Canada (1984) reported that most female secondary school students still intend to get married and be fully supported by a husband, so they fail to realize the importance of career planning and employment training. Pedro (1982) pointed out that while women may score higher than males on widely used career maturity instruments, domains of content relating specifically to women receive little or no

emphasis. As she outlined, "there are no questions about the role of women in the work force. Nor are there measures of attitudes specific to their career decision making" (p.243). Pedro postulated that career planning involvement holds promise as an alternate career maturity criterion, particularily for high-school-age females, as "there is evidence that less or different planning takes place among female high school students than among their male peers" (p.244). Super & Nevill developed the Salience Inventory (SI) (1982) to assess career committment and the relative importance of 5 major life roles, including work, home and family. Super & Nevill (1984) shared Pedro's views, stating that "knowing how important work is to a counselee is essential to knowing what his or her scores on a career maturity inventory mean. If work and career are not important, career development has not had much opportunity to take place" (p.42).

The Influence of Curriculum Program

Research has also shown curriculum program to have an influence on career maturity. Khan & Alvi (1984) reported that career maturity scores on the CDS were significantly lower for students in the general (non college preparatory) program. Khan & Alvi (1985) also found that Ontario students in the academic curriculum program had higher levels of career maturity than students in the business, technical

and general programs. Significant differences between business and technical students were also found on some of the subtests, with scores favouring students in the business category. Herr & Enderlein (1976) reported that the average 12th grade general student does not achieve the levels of career maturity which were possessed by the average student in the vocational, business or academic curriculum in the ninth grade. Further, they found that the business curriculum was related to the most change in career maturity from the ninth to 12th grade. When comparing measures of career maturity obtained on the CMI, no significant differences were found between 12th grade business and academic groups, although both were significantly different from the vocational and general groups (which were also significantly different from each other). These differences in career maturity among curricula groups have been shown to persist into young adulthood. Herr et al. (cited in Herr & Cramer, 1984) measured the career maturity of 24-27 year olds using the CDI and found that individuals from an academic curriculum background had higher levels of career maturity than persons from vocational curricula programs.

Herr & Enderlein (1976) have suggested three possible explanations for differences in career maturity among the curricula groups at the ninth grade. Some of these will be

discussed in greater detail later in this chapter. The possible explanations put forth were as follows: (1) That there is a high correlation between intelligence and career maturity and since curricula groupings are typically found to be separated by intelligence scores, one should expect such a separation in career maturity; (2) Curricula groupings typically reflect socioeconomic differences, which may in turn influence career maturity; (3) The theoretical definitions of the various curricula programs presuppose different levels of career maturity. From a theoretical perspective the academic curriculum has a clear focus upon preparation for university or college. As Herr & Enderlein outlined, "by definition persons choosing the ambiguity in goals which the general curriculum represents may be less vocationally mature than those choosing other more clearly focused curriculum" (p.236). Unfortunately this seems to confirm the statement made by an Ontario Secondary Education Review Project director who outlined in the Globe & Mail,

> As much as we may hope to change the class system through education, we're not serving the general level students very well at present. They don't get the academic credits and they don't get any specific training. There's a large group that simply falls through the cracks in the system, and for them we can do a much better job (cited in O.T.F., 1983, p.22).

The Influence of Location

Career maturity has also been shown in the literature to be effected by place of residence. A number of authors have examined the educational and occupational aspirations of rural youth in Canada (Breton, 1972), the United States (Dunne et al., 1981; Kammer, 1985; Lee, 1984a, 1984b, 1984c; Middleton & Grigg, 1959) and in other countries (Achebe, 1982; Turney et al., 1980). Middleton & Grigg found that white males from urban communities were more likely to have higher occupational and educational aspirations than those from rural areas. A significant rural-urban difference in educational aspirations was noted for females, but not in occupational aspirations. The situation appears largely unchanged in the 1980's. Turney et al. reported that in their study of Australian students, the occupational aspirations of rural boys were much lower than those of urban boys, especially with respect to aspirations for professional jobs. No significant differences were noted for rural and urban girls. However, rural girls reportedly tended to aspire to jobs which were quite unrealistic given job availability. Achebe assessed the career maturity of grade 7-10 Nigerian students using the CDI and found that " in urban schools students were more mature in their vocational attitude, job knowledge and planning competence than those in rural schools" (p.160). Finally, Breton found that

whereas 85% of the boys and 81% of the Canadian girls living in large urban centres (population of 250,000 or more) planned to finish high school, only 69% of the high school boys and 75% of the girls from small communities (population of less than 10,000) planned to do so. Only 59% of boys in small communities planned to continue to post-secondary education, compared with 71% of urban boys. The difference between girls in various locations was extremely small.

Super & Overstreet (1960), on the other hand, did not report the expected positive relationship between urban residence and career maturity. The rural grade 9 boys in their Career Pattern Study seemed to be more career mature than urban ones, "possibly because the rural boys had work experience on farms and were likely to follow family farming patterns which were already clear to them" (Osipow, 1983, p.162). However, since 1960, advances in farm technology have brought about movement from rural to urban living as machinery replaces farm workers. As Alberta Education (1984a) reported, many students who live on farms may not be able to find farm-related employment when they graduate.

A number of authors have outlined that rural youth may lack exposure to, and knowledge of, many occupations thereby limiting them in their ability to make choices that are as varied and optimal as those of urban youth (Borman, 1981;

Kammer, 1985; Long, 1982; Rich, 1979). This would increase their reliance on comprehensive guidance information and services within the school. However, Miller (1982) and Forestell (1985) shared the concern that some smaller jurisdictions have limited financial resources which may put them at a disadvantage in developing, implementing or expanding career services and hiring trained guidance counsellors. Forestell (1984), in her review of the Alberta Education publication Guidance and Counselling Services in Alberta Schools, outlined that "the document reflects the development of programs in urban areas and does not deal with rural areas sufficiently. There are many differences between needs and the availability of resources between the rural and urban areas" (p.20).

Several authors (Long, 1982; Rich, 1979; Stein, 1977) have outlined the importance of providing rural students with knowledge of non-local occupations, or more specifically middle- and high-status occupations, so that they will have an equal opportunity to make varied and optimal career choices. Kammer (1985) has suggested that exposing students to role models can assist them in becoming more confident in realizing their professional career goals. She has noted that "these are especially valuable for girls in rural areas, where the opportunity to observe women in nontraditional roles is more limited" (p.24).

Additional Influences

There are numerous other factors which have been found to influence the career maturity of high school students. Some of these factors will be briefly discussed.

A controversy exists as to the influence of socioeconomic status on career maturity. According to Young (1983), "social class continues to have a dominant effect on educational and occupational aspirations and attainment" (p.408). Lee (1984a) and Danziger (1983) found a positive correlation between socioeconomic status and the occupational and educational aspirations of white high school students. Higher socioeconomic status was found to have a negative correlation with the occupational aspirations of black youth (Lee, 1984a) and young men (McNair & Brown, 1983). Breton (1972) reported that 14% more students from high socioeconomic status (based on occupational status of father), compared with those from low status, intended to complete high school. In addition, of those who intended to finish high school, about 12% more from high- rather than low-status families planned to continue to post-secondary education. However, Chodzinski (1983), Jordaan & Heyde (1979) and Super & Nevill (1984) did not find socioeconomic status to be a significant predictor of career maturity.

Ethnic differences in career maturity have also been noted. Lee (1984a, 1984b) cited differences in the career

choice of black, white and native American students. Lawrence & Brown (1976) also found significant race differences in career maturity as measured by the CMI between black and white students. However, McNair & Brown (1983) found no difference in occupational aspirations, expectations and career maturity between black and white 10th graders in North Carolina (the same state in which the studies by Lee were carried out). Jordaan & Heyde (1979) concluded that "where slight differences between blacks and whites do appear, they seem to be - at least in the later years of high school - a function of socioeconomic status rather than race"(p.160).

Young (1983) outlined six characteristics of the family setting that have been identified as influences upon career development: birth order, early parent-child interaction, identification with parents, perception of parental influence and amount of contact with parents (p.403). McNair & Brown (1983) found that parental influence was the primary significant predictor of occupational expectations. However, parental influence was found to have a greater impact upon the career choice attitudes of rural black and native students (Lee, 1984b), and on females (Danziger, 1983).

The relationship between school achievement, intellectual ability and career maturity has received much attention in the literature. Research has consistently shown

that students in academic or high ability curricula groups score higher on standardized measures of career maturity (Herr & Enderlein, 1976; Khan & Alvi, 1984, 1985). Khan & Alvi (1985) have provided some insight into this:

> If curriculum focus is a proxy for ability, then our studies have shown that high ability students performed better on career maturity and career development tests than low ability students. It is thus reasonable to think that the relationship between curriculum focus and career maturity is moderated by the ability of students similar to a g-factor. However, to suggest that tests of career maturity are identical to ability tests and measure the same traits would be quite unwarranted (p.150).

Westbrook (cited in Westbrook, 1983) reported that correlations between cognitive measures of career maturity and mental ability measures among grade 6-12 students ranged from 0.43 to 0.86, with a median of 0.61. However, he found that career maturity measures in the affective domain correlated much lower with mental ability measures, ranging from 0.08 to 0.49, with a median of 0.32. Westbrook asserted that "to be of practical value, career maturity measures must not closely duplicate the measurement of mental ability and educational achievement" (p.294).

Jordaan & Heyde (1979) postulated that school

performance is correlated more highly with career maturity than is cognitive ability. According to these authors,

> How much verbal reasoning ability a person demonstrates (potential ability) is related less to vocational maturity than to how he uses the potential (ability manifest in grades). This is not surprising if both vocational maturity and academic achievement represent successful coping with the developmental tasks of the junior and senior high school years (p.157).

Danziger (1983) showed further evidence of this in her study when she found that academic achievement had a "crucial positive effect" (p.683) on the career aspirations of male and female high school students.

Work Attitudes

The importance of affective work competencies has been stressed by a number of authors. Herr (1984) has listed these as general components of employability which are linked to job survival. Work values, habits and attitudes have also been cited as powerful factors in the school-work transition (Alberta Education, 1984a, 1984b, 1985a; Beach & Gedeon, 1980; Borgen & Amundson, 1984; Maynard, 1985). Maynard reported that when asked what conditions would spur

employers to hire more young workers, the vice president of the Canadian Federation of Independent Business replied that "employers put a healthier economy at the top of the list - but 'better work attitudes' are next in line and 'better skills' close behind" (p.16). Unfortunately, Beach & Gedeon revealed that the acquisition of the affective work competencies appear to be an incidental factor in the school instructional program. Nelson (cited in Beach & Gedeon) referred to these "human" aspects of working as "occupational survival skills" which "may be as important or even more important than the 'technical' aspects of work" (p.53). Beach & Gedeon have emphasized that the student, the future worker, should be provided the opportunity to develop competencies in both cognitive and affective areas which relate to job performance and job survival.

The distinction between work values and attitudes is one which is often not made in the career development literature. As Maguire et al. (1982) outlined, "the general area of work values, work attitudes and job preferences is a broad continuum extending from enduring values to more transient opinions" (p.226). Zytowski (1970) defined work values as a "set of concepts which mediate between the person's affective orientation and classes of external objects offering similar satisfactions" (p.176). Super developed the Work Values Inventory (1970) to explore the

sources of satisfaction the individual seeks in work. According to Maguire et al., these values are "fundamental personality characteristics that relate to job selection and job satisfaction" (p.226).

Super (1984) outlined that two major categories have emerged in his work on values: extrinsic and intrinsic. Extrinsic values are defined as "the concomitants or outcomes of engaging in an activity" (p.34). Economic security, social interaction and prestige are listed as examples of extrinsic values. Intrinsic values (eg., creativity, achievement, ability utilization) are "inherent in the activity itself rather than dependent on the conditions in which or people with whom one engages in the activity" (p.35).

Work attitudes have not been clearly defined in the literature. The affective components of two of the major career maturity measures seem to examine different aspects of career development attitudes. The CMI attitude scales measure various aspects of decision making (decisiveness, involvement, independence, orientation and compromise) while the CDI measures attitudes toward career planning and exploration. As Westbrook (1983) wrote, "career maturity tests differ substantially in their coverage of cognitive, psychomotor, and affective behavior. ... Although several scales from different tests have similar names, the

items do not look as if they are measuring the same behavior" (p.297).

Maguire et al. (1983) have made the distinction between values and attitudes more clear, stating,

> Moving from the values end of the continuum, to the opinion end, an area is encountered at which values begin to blend into opinions. This is an area in which a person's view of the world of work is important. It is not a value, because it is not necessarily a strongly held, enduring trait, rather it is an attitude, perhaps even an opinion that changes from one month to the next as a result of experience and personal growth (p.2).

They developed an instrument, Attitudes Toward the World of Work (ATWOW), to measure attitudes in this rather vague area. Maguire et al. (1982) reported that little research seems to have been done on high school students' attitudes, perceptions and anticipations about work, "specifically ... on their general perceptions about employers, and on their perceptions about the adequacy of preparation that they receive" (p.228). Most scales in the ATWOW inventory seem to cover aspects of two of the components of employability outlined by Herr (1984)- affective work competencies (eg. Diligence, Laziness, Confidence in Succeeding, General Attitudes Toward Earning a Living) and Industrial Discipline (eg. Employer Characteristics). As Pautler & Lewko (1985)

outlined,

> Unique to this instrument is the fact that it deals with aspects of the work world that are dependent on the social and economic context, and so captures what children are thinking about work under the very conditions that might characterize the time of their transition to the work world (p.202).

There are studies which have examined the work values and attitudes toward work of high school students in Alberta (Germschied, 1983; Maguire et al., 1982, 1983), in Ontario (Pautler & Lewko, 1985), throughout Canada (Burnstein, Tienhaara, Hewson & Warrander, 1975) and in the United States (Kapes & Strickler, 1975; Lee, 1984c; Perrone, 1973; Savage, 1983). The studies conducted in Alberta were admittedly carried out when unemployment in that province was low, when "daily newspapers [had] pages of "help wanted" ads describing an unbelievable variety of career opportunities" (Maguire et al., 1982, p.235). Germschied and Maguire et al. (1982) found that Alberta students were generally supportive of the traditional Canadian work ethic which Burnstein et al. investigated and summarized as follows: "Canadians are, in principle, committed to work; [they] choose work over most leisure activities when a trade-off is necessary; Canadians choose to work even during their leisure time; and... prefer working to being on unemployment insurance" (p.21).

Using the ATWOW inventory, Pautler & Lewko (1985) examined the work attitudes of youth in a northern Ontario community where a negative economic climate prevailed. In the year prior to the collection of data, the community had experienced 30% unemployment and a 53% increase in welfare cases. Not surprisingly students in this study ascribed less to the traditional work ethic than did students in the Maguire et al. (1982) study conducted in positive economic conditions. Pautler & Lewko (1985) suggested that it would be important to investigate perceptions of work using subjects who were exposed to varying economic conditions.

A number of factors have been found to influence the work values and attitudes of high school students. Again, the impact of gender, curriculum program and location on these affective work competencies will be examined.

The Influence of Gender

Maguire et al. (1982) and Pautler & Lewko (1985) reported that scores on the ATWOW scales indicated that males placed a higher value on job security, independence, money and ambition than did females, and were more likely to view unemployment as undesirable. Females were more critical of laziness on the job and were less likely to see employers as being greedy and unfair. Lee (1984c) assessed the work values of 10th grade rural white, black and native American students and found that regardless of ethnic group or sex,

the overwhelming majority of these students considered being well paid for work to be an important value. Males generally valued working with their hands and independence, while the majority of females valued working with people. This is consistent with results obtained by Perrone (1973) in a longitudinal study which revealed that girls rated helping others, working with people, and creativity as more important and a good income less important than did boys. Maguire et al. (1982) cited 10 studies published between 1959 and 1980 which examined sex differences in work attitudes among secondary school students. They summarized the findings as follows:

> In general, males exhibited more extrinsic work values (eg., salary, security, status) than females. Intrinsic concerns for males tended to be independence and leadership. Females were basically intrinsically - oriented (eg., interesting work, altruism, personal satisfaction). Their most common extrinsic concern was working conditions (p.229).

The Influence of Curriculum Program

Maguire et al. (1983) reported differences in work attitudes relating to curriculum program. They outlined that "generally speaking, the Technical, Academic and Business groups felt better prepared than the other groups" (p.10) which comprised students in the General, Undecided or No Main

Emphasis categories. The academic group had the highest interest rating, while the undecided and general groups had the lowest ratings. The academic group showed the lowest scores on money, and the business group indicated to a greater degree than other groups that getting and holding a job was largely under their own control.

Kapes & Strickler (1975) administered the Occupational Values Inventory (OVI) (1971) to senior students who had taken the OVI three years previously in ninth grade. The values "Interest and Satisfaction" and "Preparation and Ability" appeared to be effected differently by various high school curriculum experiences. They found that the most important value for all curricula groups in ninth and 12th grades (Interest & Satisfaction) appeared to increase in importance only for academic students, while decreasing in importance for business students. The work values of academic students appeared to be relatively unstable over the high school years. Kapes & Strickler postulated that perhaps the academic students had their work values challenged to a greater degree over this time period than did students in other curricula areas. They summarized their findings as follows: "Different curriculums [sic] do appear to make a difference in "affective outcomes" as well as in skills and knowledge learned" (p.91).

The Influence of Location

Little research appears to have been done regarding the work values and attitudes of students living in various locations. Savage (1983) reported differences in the value perceptions of work by rural, suburban, and urban vocational students living in Ohio. Scores on Affective Work Competencies Inventory (1978) clusters were lower for rural students than for those living in urban or suburban areas in all but one of the 15 clusters. As Savage wrote, "this may reflect a greater job concern held by urban and suburban people - perhaps due to the nature of the rural industry that is primarily agricultural and extractive in contrast with an urban industry that is primarily manufacturing and service related" (p.34).

Miller & Crader (1979) found that urban people were more concerned about their jobs than were rural people who were more concerned about self, family and friends. Moriarty (1981) identified the characteristics of rural youth from South Dakota's western plains. According to Moriarty,

> The youth possess a high degree of independence, close family ties, a respect for their elders, and more interest in the countryside than in academics.... there is a reluctance to accept either people or ideas from the outside. On the surface there seems to be general acceptance of the outside world, yet an isolated and

tightly knit social structure serves to insulate them from external access (p.13).

Whether these characteristics will be evidenced in the work attitudes of rural youth in Alberta is yet to be established. Individual assessment of work values and attitudes is very important. As Dawis (1984) reminds us, "people differ in what about work is important to them. We cannot - and should not - rely on the demographic characteristics of individuals (gender, age, race, education) as the basis for inferring what is important to them" (p.292).

Research Hypotheses

Based on the literature reviewed, a number of hypotheses were generated. These relate to the questions asked in Chapter I.

1) There are significant differences between the mean career maturity scores and the mean attitude toward work scores of male and female grade 12 students in rural schools.

2) There are significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in academic and general curricula programs in rural schools.

3) There are significant differences between the mean career maturity scores and the mean attitude toward work scores of

male and female grade 12 students in urban schools.

4) There are significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in technical, academic, business and general curricula programs in urban schools.

5) There are significant differences between the mean career maturity scores and the mean attitude toward work scores of male and female grade 12 students.

6) There are significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in academic and general curricula programs.

7) There are significant differences between the mean career maturity scores and the mean attitude toward work scores of rural and urban grade 12 students.

CHAPTER III

Methodology

Subjects

Two hundred and thirty-four (234) grade 12 students from three rural schools in Central Alberta and two urban high schools in Edmonton participated in the study. Grade 12 students were selected because they would be making the transition from high school to work or further education within the current year. Subjects ranged in age from 16 to 20, but the majority were 17 or 18 years old (69% and 24%, respectively). Thirty-five students returned incomplete CDS or ATWOW Surveys. Data from these subjects were not used.

All grade 12 students from the following rural schools participated in the study: Daysland School, Daysland, Alberta (N=20, 13 females, 7 males); Sedgewick Central High School, Sedgewick, Alberta (N=39, 15 females, 24 males); and Thorhild Academic and Vocational High School, Thorhild, Alberta (N=29, 16 females, 13 males). Although complementary programs and courses are offered in these schools in the Technical and Business areas, curricula programs leading to special certificates in these areas were not in existance. Grade 12 students in these schools were therefore enrolled in either a General program (leading to

eligibility for the General High School Diploma) or an Academic program (leading to a matriculation standing and eligibility for the Advanced High School Diploma). (See Appendix A for an outline of criteria for High School Diplomas). The principals reported that the educational emphasis in these schools was primarily academic. The schools in Daysland and Sedgewick received the services of a counselling psychologist one day per week, while Thorhild school reportedly did not receive these services.

The rural high schools in this sample were not randomly selected. They were chosen because they were located in a "rural" area (as previously defined), and had an enrollment of at least 45 grade 12 students. For administrative convenience, all schools chosen were located within a 170 kilometre (km) radius of Edmonton. For further data relating to the career guidance resources that were available, refer to Appendix B, Table B-1.

As Moriarty (1981) outlined, it is necessary to clearly describe the rural environments in which the students live. The rural areas chosen are primarily farming communities. Sixty-eight percent of the rural students surveyed lived on a farm for all or part of the year. Eighty percent of the rural students reported that they travelled more than 5 km to school, with 15% of these students travelling more than 31 km. Tables C-1 and C-2 (in Appendix C) provide an

overview of the rural communities in which the students live, and of parental education patterns.

The urban sample consisted of a group of students from each of four curricula programs (Technical, Academic, Business and General) from the following Edmonton high schools: Jasper Place Composite High School (n=64, 30 females, 34 males) and M.E. Lazerte Composite High School (n=79, 37 females, 42 males). Three students that did not indicate their gender were also included in the sample, but these subjects were not used in any statistical analyses involving gender. Classes which would contain students from the curricula programs required were selected for participation by the school principal or guidance counsellor on the basis of scheduling and teacher consent. All students in the rural and urban groups were asked to indicate the main focus of their curriculum program on the Background Information sheet. If the students indicated two programs (a diploma and a certificate program), the student was categorized in the diploma group. Some students in diploma programs may have been taking courses which also made them eligible to receive a Vocational or Business Education Certificate. Table 1 outlines the number of subjects in the various curricula programs from each school.

Table 1

Number of Students in Curricula Programs by School

Schools	Curriculum Group				
	Technical	Academic	Business	General	Not Indicated
Rural					
Daysland	0	10	0	8	2
Sedgewick	6	15	3	8	7
Thorhild	0	24	2	0	3
Urban					
Jasper Place	12	21	12	17	3
M.E. Lazerte	20	29	10	17	5

Twenty students that did not indicate their curriculum program were also included in the sample but these cases were not used in any statistical analyses involving this variable.

The educational emphasis in the urban schools was "composite"; the schools offered a "wide range of academic courses as well as providing students with educational opportunities in business education, industrial-vocational education, home economics and fine arts" (M.E. Lazerte Composite High School, 1984, p.1). Business Education and

Vocational Certificates were available to senior high school students who met the eligibility criteria. (See Appendix A for definitions of criteria for certificates). Students enrolled in general and academic programs would become eligible for the General and Academic High School Diplomas, respectively. All schools used the definitions outlined in Appendix A to differentiate curriculum focus. This information was provided by school principals on the form shown in Appendix D. It was assumed that all schools followed the course curriculum guidelines outlined by Alberta Education. Jasper Place School also offered an Academic-Occupational program for "students experiencing difficulties in meeting the demands of the regular program" (Alberta Education, 1985b, p.36) (See Appendix E for a definition of criteria for candidates). The technical group from Jasper Place School then included students from this program as well as those in the Vocational Certificate program.

The urban high schools were randomly selected from the population of high schools within the Edmonton Public School System. The public school system was chosen because all the rural schools selected were public schools. Harry Ainley Composite High School was originally chosen in the random selection process, but could not accomodate participation in the study. Jasper Place Composite High School was then randomly selected and agreed to participate. While Jasper

Place School is located in what would be described as a middle-to upper-class areas of west Edmonton, M.E. Lazerte School is located in a north-east area comprising people of low to upper socioeconomic status. Jasper Place School reportedly had the equivalent of three guidance counselling positions filled during the 1985/86 academic year, while M.E. Lazerte School had the equivalent of four. For further data relating to the career guidance resources that were available, refer to Appendix B, Table B-2. Tables C-3 and C-4 in Appendix C provide an overview of the city of Edmonton and parental education patterns, which should provide for further understanding of the youth surveyed.

Instrumentation

The following instruments were administered to each student. All are displayed in Appendix F.

Attitudes Toward the World of Work (ATWOW) (Maguire, Romaniuk & MacRury, 1983)

This instrument, published by Alberta Education, Planning Services Branch, measures attitudes and opinions relating to different aspects of work on a 5 point Likert Scale. The 75 items on the instrument are grouped into the following 15 scales (consisting of five items each): Preparation by School, Interest and Variability in Jobs, Diligence, Laziness, Job Security, Positive Employer Characteristics,

Independence, Money, Ambition, Locus of Control, Confidence in Succeeding, Negative Employer Characteristics, Social Relations, Attitudes Towards Unemployment, and General Attitudes Towards Earning a Living. Subscale scores may range from 5 to 25. Refer to Appendix F for a description of these scales.

Data relating to the reliability and validity of the ATWOW scales are presented in the Administration Manual (Maguire et al., 1983). Cronbach's alphas, which provide an estimate of item homogeneity, ranged from 0.309 to 0.620 on the 15 subscales. Test-retest correlations ranged from 0.460 to 0.703. Only one scale (Diligence) had a reliability of less than 0.5.

Career Development Survey (CDS) (Khan & Alvi (The Ontario Institute for Studies in Education), 1984)

The Career Development Survey contains 50 multiple choice items to assess cognitive skills in the following five areas: Self-Evaluation and Development, Career-Awareness, Career Decision-Making, Employment-Seeking, and Work-Effectiveness. The items for this instrument were written to reflect the social and economic environment of Canada. Permission was received from the authors to change the wording on a few items (i.e. names of companies, educational institutions, guidance information services) to reflect the Alberta milieu. Subtest scores may range from 0 to 10.

Refer to Appendix F for definitions of the 5 subtests.

The Career Development Survey was chosen for use in the present study because it is a recent, Canadian instrument. Khan & Alvi (1985) reported that the reliability estimate for the total survey was 0.82. The alpha internal consistency estimates of reliability for the ten-item scales ranged from 0.35 to 0.58. The authors stated that the reliability estimates for the individual subtests may not be as high as one would desire, but may be considered acceptable in view of the fact that there are only ten items in each subtest.

Career Demographics: Part 1. Background Information Sheet

This information sheet, developed by the present researcher, contained questions regarding the demographic characteristics of the student.

Career Demographics: Part 2. Student Information Questionnaire (SIQ)

This questionnaire, developed by the present researcher for use in this study, contained 17 multiple choice and short answer questions regarding the availability and utilization of school guidance resources, and the students' past work experience and future plans.

Procedures

Pilot Study: A pilot study was initially undertaken with

ten students in various curricula programs from M.E. Lazerte Composite High School. M.E. Lazerte School was chosen because it was the first urban school to consent to participate in the study. The pilot study was done to ascertain the need for revisions to the Student Information Questionnaire and Background Information Sheet, or for procedural changes. A few minor procedural changes and revisions were made as a result of observations by the experimenter and comments from the students involved. The students who participated in the pilot study were not included in the research sample.

Research Study: The experimenter (E) initially contacted the principals of the schools that had been selected for the study. A research proposal was mailed to each principal for consideration. E then contacted the principals again to obtain consent to survey students from their schools. Four of five principals provided consent. Harry Ainley Composite High School was unable to accomodate participation in the study. Jasper Place Composite High School was then selected and consent was obtained. The principal was given the option of naming a particular school guidance counsellor, teacher or other staff member to act as liason and arrange the details of student participation and scheduling. A school guidance counsellor fulfilled this

function at M.E. Lazerte School, while at Jasper Place School, the principal and her secretary worked jointly in this regard. The rural principals arranged the details in their schools.

A brief, standardized introduction to the study was provided for the classroom teacher to read before data collection began (see Appendix G, p.173). Immediately before data collection, E was introduced to the class by the teacher, and then she read a standardized statement of the general purpose of the study and the procedures that would be followed (see Appendix G, p.174). Students were informed of their right to withdraw from the study, and were told that they would not be required to sign their name on any of the forms. They were assured that their responses would be treated confidentially. Only a few students did not want to participate. These students remained in the room working on their own.

Students who agreed to participate were given a pencil and an envelope containing all four instruments. Written instructions were outlined at the beginning of each instrument. Students were given as much time as was required to complete the surveys. Approximately one and a half hours was required.

After the surveys had been completed and returned to the experimentor in the envelope provided, E thanked the

students for their assistance and informed them that a copy of the completed research report would be sent to their school principal and could be made available to them upon request (see Appendix G, p.176).

Data were collected at Thorhild, Daysland, Sedgewick and M.E. Lazerte High Schools during the third week of February, 1986. Data were not collected at Jasper Place Composite High School until early April, 1986 due to the fact that additional time was required to forward a research proposal and gain consent after the change in schools was necessitated. Data were collected simultaneously from the students (under the supervision of E and/or a school staff member) in all schools except Jasper Place, where class scheduling and the lack of a large enough room prevented this. Data collection at Jasper Place School took place during five different class periods in a one week time-span. Each of the five classes contained students from a specific curriculum group. Three subjects from the 'Technical' class were also in the class which was representative of 'General' students. These subjects did not complete another survey, and were therefore only included once in the research sample.

A follow-up note of thanks was sent to all school principals. They were asked to express further thanks, on behalf of the experimenter, to their staff and to the students who participated in the investigation.

Chapter IV

Results

Data from the CDS and ATWOW instruments were analyzed using the Analysis of Variance (ANOVA) technique. Statistical analyses were performed using a Statistical Package for the Social Sciences (SPSSx) program.

Due to the fact that only a few rural subjects indicated that their main curriculum focus was technical or business, only the academic and general curricula groups were compared in analyses involving all subjects in the study. However, a comparison among all four curricula groups (technical, academic, business, general) could be made for the urban sample. Therefore, three separate analyses were performed:

1. 2(curriculum) x 2(sex) ANOVA to compare rural groups;
2. 4(curriculum) x 2(sex) ANOVA to compare urban groups;
3. 2(curriculum) x 2(sex) x 2(location) ANOVA to compare all groups in the sample.

Results obtained on each of these analyses will be discussed. Where significant differences occurred, frequency distributions of responses from the Background Information Sheet and the Student Information Questionnaire were examined to assist in data interpretation and discussion of the results.

Analysis 1

Research hypotheses 1 and 2 were tested in this analysis. Hypothesis 1 stated that there are significant differences between the mean career maturity scores and the mean attitude toward work scores of male and female grade 12 students in rural schools. Hypothesis 1 was partially supported. Analysis of CDS subtest scores revealed a significant main effect for sex on the employment-seeking skills subtest, where females scored significantly higher than males (see Table 2). Significant main effects for sex were also found on four ATWOW subscales (see Table 3). Females scored significantly higher than males on the interest and social relations subscales, while males scored significantly higher than females on independence and money.

Hypothesis 2 stated that there are significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in academic and general programs in rural schools. This hypothesis was partially supported in analysis of the career maturity scores. Academic students scored significantly higher than general students on the self-evaluation and development skills subtest of the CDS (see Table 4). However, results obtained on the attitude toward work scores rejected hypothesis 2 as no main effects for curriculum program were found on the ATWOW subscales.

Table 2

Results of ANOVA for Sex Factor and Career Development Survey for Rural Students

CDS Subtests	Sex	n	$\bar{X}$	SD	F
Self-Evaluation and Development Skills	Males	33	7.85	2.09	
	Females	32	8.09	1.67	
Career-Awareness Skills	Males	33	7.00	1.15	
	Female	32	6.72	1.25	
Career Decision-Making Skills	Males	33	5.85	1.79	
	Females	32	6.75	1.68	
Employment-Seeking Skills	Males	33	6.79	1.63	4.542*
	Females	32	7.53	1.02	
Work-Effectiveness Skills	Males	33	8.12	1.43	
	Females	32	8.38	1.36	

* $p<.05$
df=1,61

Table 3

Significant Means for the Attitudes Toward the World of Work Subscales by Sex for Rural Students

Subscales	Sex	n	$\bar{X}$	SD	F
Interest	Males	33	19.21	1.76	4.053*
	Females	32	20.16	1.89	
Independence	Males	33	19.18	2.17	7.17*
	Females	32	17.72	2.50	
Money	Males	33	16.64	2.93	5.978*
	Females	32	15.09	2.04	
Social Relations	Males	33	18.52	2.67	5.252*
	Females	32	19.91	2.33	

* $p<.05$
df=1,61

Table 4

Results of ANOVA for Curriculum Program Factor and Career Development Survey for Rural Students

CDS Subtests	Curriculum Program	n	$\bar{X}$	SD	F
Self-Evaluation and Development Skills	Academic	49	8.37	1.56	10.561**
	General	16	6.75	2.29	
Career-Awareness Skills	Academic	49	6.92	1.29	
	General	16	6.69	0.87	
Career Decision-Making Skills	Academic	49	6.53	1.71	
	General	16	5.56	1.86	
Employment-Seeking Skills	Academic	49	7.29	1.40	
	General	16	6.75	1.39	
Work-Effectiveness Skills	Academic	49	8.41	1.26	
	General	16	7.75	1.69	

** $p<.01$
df=1,61

A number of two-way interactions were evident as a function of sex and curriculum program. The significant interactions on the self-evaluation and development skills ($F=5.809$, $df=1,61$, $p<.05$) and the work-effectiveness skills ($F=6.668$, $df=1,61$, $p<.05$) subtests of the CDS resulted from the fact that males in the academic group scored higher than did females, while females scored higher than males in the general group (see Figures 3 and 4). Two significant two-way interactions were also revealed on the money and locus of control subscales of the ATWOW inventory (see Figures 5 and 6). On the money subscale, males in the academic group scored lower than did males in the general group, while the opposite was true for females ($F=4.034$, $df=1,61$, $p<.05$). Similar results were found on the locus of control subscale ($F=5.842$, $df=1,61$, $p<.05$), and it was also noted that academic females scored lower than general males.

Analysis 2

Research hypotheses 3 and 4 were tested in this analysis. Hypothesis 3 stated that there are significant differences between the mean career maturity scores and the mean attitude toward work scores of male and female grade 12 students in urban schools. This hypothesis was partially supported in analysis of the attitude toward work scores. Significant main effects for sex were evidenced on seven ATWOW subscales, as outlined in Table 5.

Table 5

Significant Means for the Attitudes Toward the World of Work Subscales by Sex for Urban Students

Subscales	Sex	n	$\bar{X}$	SD	F
Laziness	Males	72	12.08	3.90	6.375*
	Females	64	10.28	3.25	
Job Security	Males	72	18.89	2.17	3.969*
	Females	64	18.70	2.29	
Independence	Males	72	19.64	2.22	4.577*
	Females	64	18.16	2.98	
Money	Males	72	17.72	2.74	14.937**
	Females	64	15.81	2.54	
Locus of Control	Males	72	14.96	3.61	10.395**
	Females	64	13.05	3.28	
Confidence	Males	72	17.99	2.68	5.252*
	Females	64	16.64	2.31	
Attitudes Toward Unemployment	Males	72	16.22	2.99	8.856**
	Females	64	14.33	2.94	

* $p<.05$
** $p<.01$
df=3,128

Figure 3

Self-Evaluation and Development Subtest Scores of Rural Students as a Function of Sex and Curriculum Showing a Significant Two-way Interaction

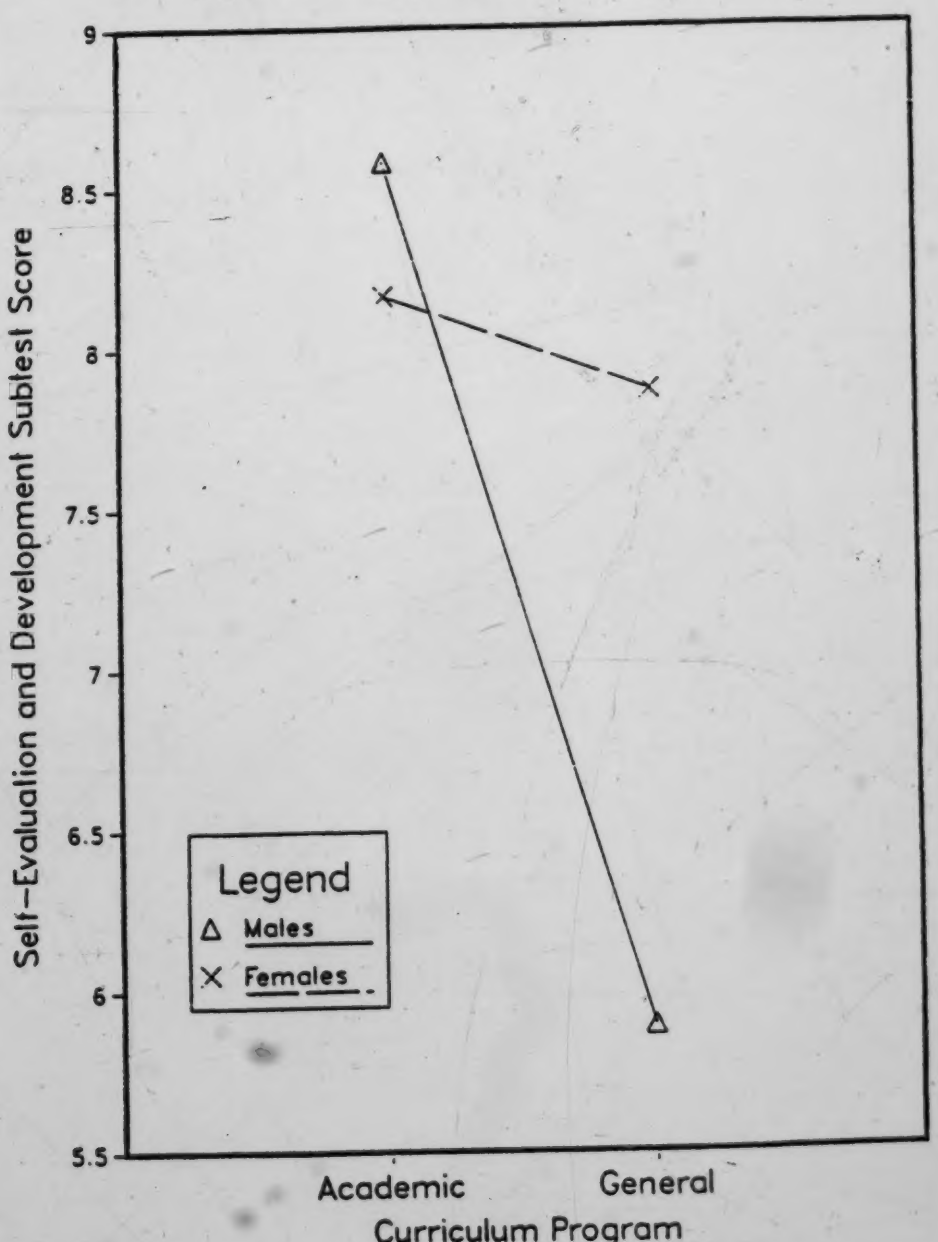


Figure 4

Work-Effectiveness Subtest Scores of Rural Students as a Function of Sex and Curriculum Showing a Significant Two-way Interaction

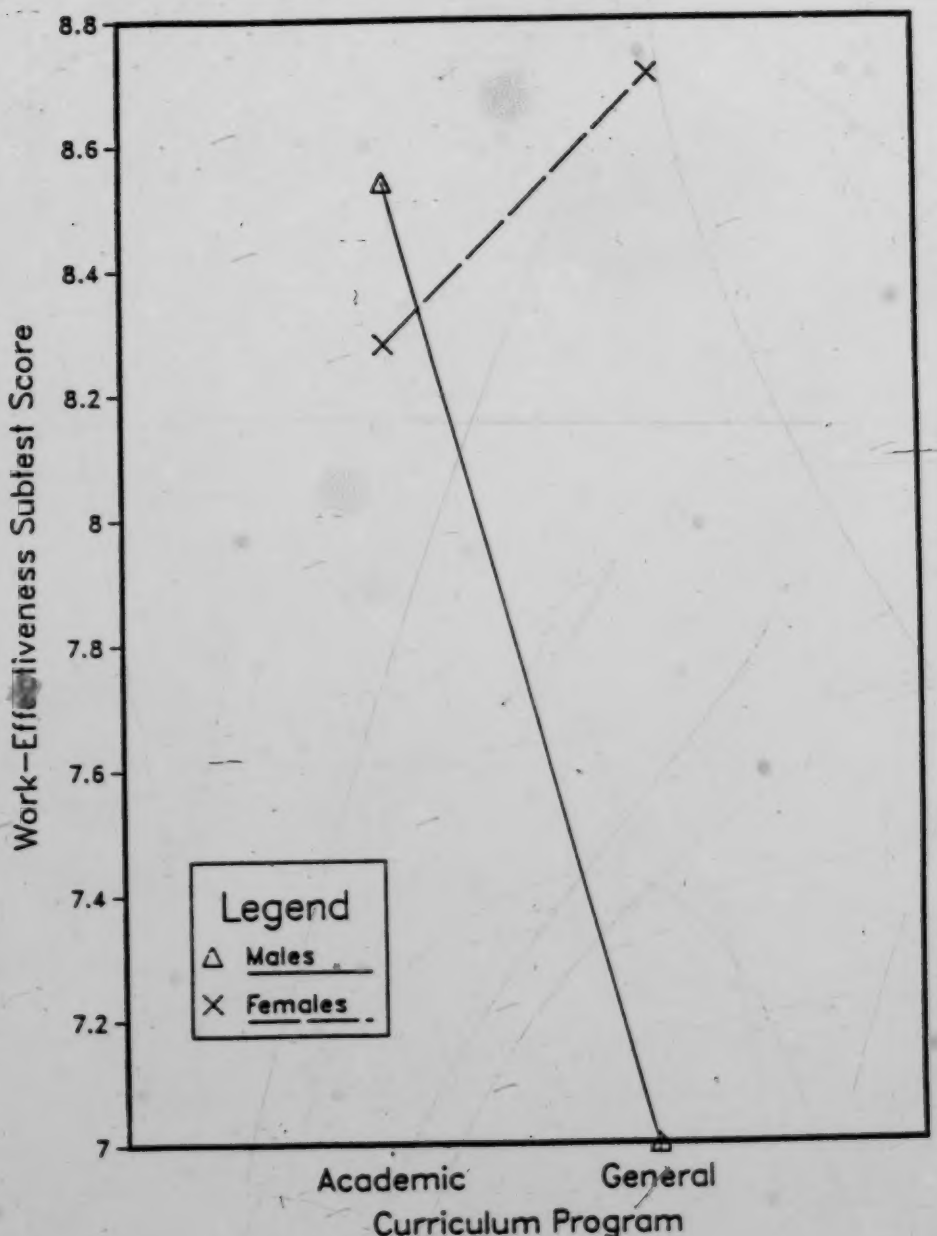


Figure 5

Money Subscale Scores of Rural Students as a Function of Sex and Curriculum Showing a Significant Two-way Interaction

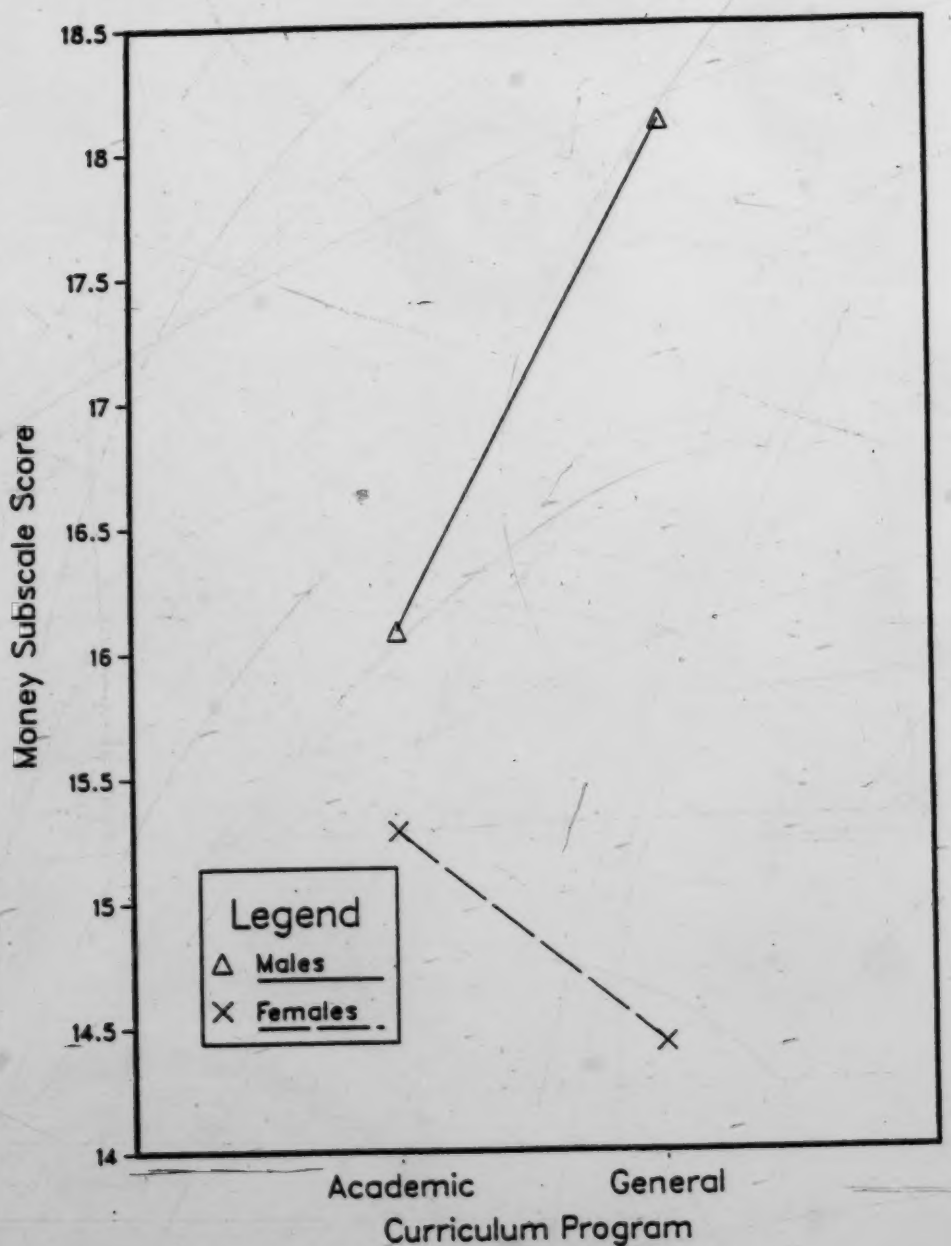
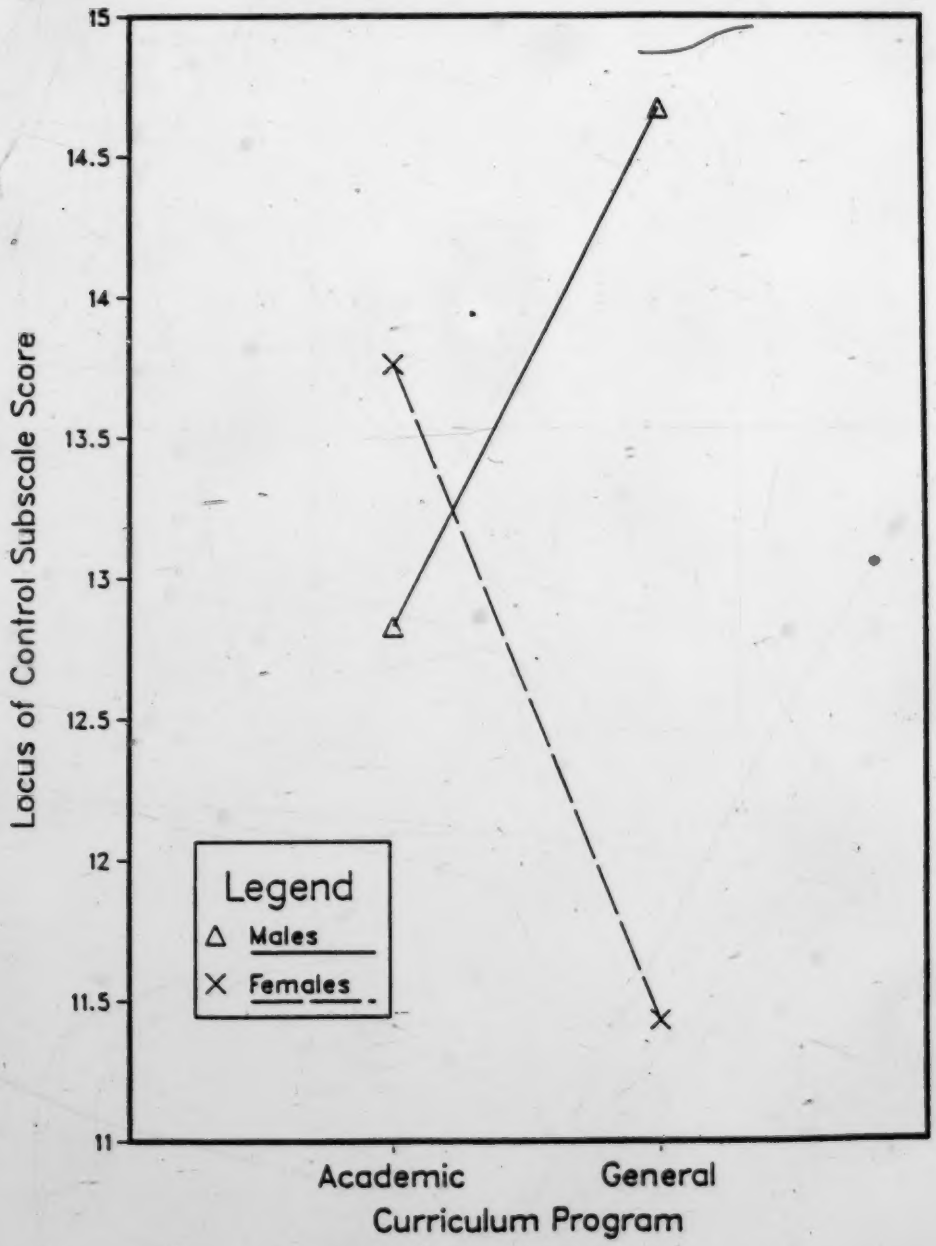


Figure 6

Locus of Control Subscale Scores of Rural Students as a Function of Sex and Curriculum Showing a Significant Two-way Interaction



Males scored higher than females on all of these subscales. However, results obtained on the career maturity scores rejected hypothesis 3 as no main effects for sex were found on the CDS subtests.

Hypothesis 4 stated that there are significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in technical, academic, business and general curricula programs in urban schools. This hypothesis was supported in analysis of the career maturity scores. Significant main effects for curriculum program were found on all five subtests of the CDS. The results are shown in Table 6. The means of all curricula groups were compared on each subtest using the Scheffé method of multiple comparisons between means (see Table 7). Scheffé comparisons revealed five significant contrasts on the self-evaluation and development skills subtest. The academic curriculum group mean was significantly higher than the technical, business and general group means. There was also a significant contrast between the technical group mean and the means of the business and general groups, with the latter groups scoring higher. Four significant contrasts were found on the career decision-making skills subtest. The academic group mean was higher than those of the technical and general groups, and the technical group mean was significantly lower

Table 6

Results of ANOVA for Curriculum Program Factor and Career Development Survey for Urban Students

CDS Subtests	Curriculum Program	n	$\bar{X}$	SD	F
Self-Evaluation and Development Skills	Technical	31	5.06	2.25	
	Academic	49	7.22	1.83	7.206***
	Business	22	6.14	2.03	
	General	34	6.12	1.63	
Career-Awareness Skills	Technical	31	4.39	2.09	
	Academic	49	6.55	1.63	9.862***
	Business	22	6.14	1.49	
	General	34	5.91	1.69	
Career Decision-Making Skills	Technical	31	3.74	1.84	
	Academic	49	5.98	1.87	8.571***
	Business	22	5.32	1.73	
	General	34	5.18	1.83	
Employment-Seeking Skills	Technical	31	5.77	2.22	
	Academic	49	6.96	1.35	2.789*
	Business	22	6.91	1.80	
	General	34	6.79	1.25	
Work-Effectiveness Skills	Technical	31	6.48	2.84	
	Academic	49	8.31	1.10	5.407**
	Business	22	8.14	1.61	
	General	34	7.91	1.33	

* $p<.05$
** $p<.01$
*** $p=.001$
df= 3,128

Table 7

Significant Scheffé Comparisons Between Means for Curriculum Program Factor and Career Development Survey for Urban Students

CDS Subtests	Significant Contrasts	Scheffé Value
Self-Evaluation and Development Skills	Technical vs. Academic	24.15
	Technical vs. Business	4.09
	Technical vs. General	4.97
	Academic vs. Business	4.82
	Academic vs. General	6.61
Career-Awareness Skills	Technical vs. Academic	28.77
	Technical vs. Business	21.90
	Technical vs. General	12.22
Career Decision-Making Skills	Technical vs. Academic	28.20
	Technical vs. Business	9.54
	Technical vs. General	9.95
	Academic vs. General	3.81
Employment-Seeking Skills	Technical vs. Academic	10.00
	Technical vs. Business	6.19
	Technical vs. General	6.23
Work-Effectiveness Skills	Technical vs. Academic	20.70
	Technical vs. Business	11.55
	Technical vs. General	10.79

Note. Scheffé value has to be greater than 2.68 in order to be significant at $p<.05$.
df=3,128

of the business and general groups. Three contrasts were significant for each of the remaining subtests showing that the technical group scored significantly lower than the academic, business and general groups.

A t-test was performed on the mean CDS scores of the technical groups from M.E. Lazerte and Jasper Place Composite High Schools to ascertain whether these scores were significantly different. This analysis was undertaken due to the fact that the technical group from Jasper Place School consisted of students in the Vocational Certificate and Academic-Occupational programs while the technical group from M.E. Lazerte School consisted only of students in the Vocational Certificate program. Where significant differences did exist on three subtests (self-evaluation and development skills ($T=2.90$, $df=1,30$, $p<.01$), career-awareness skills ($T=2.29$, $df=1,30$, $p<05$) and career decision-making skills ($T=3.02$, $df=1$, $p<.01$)), the Jasper Place technical group attained higher mean scores.

Analysis 3

Research hypotheses 5, 6 and 7 were tested in this analysis. Hypothesis 5 stated that there are significant differences between the mean career maturity scores and the mean attitude toward work scores of male and female grade 12 students. This hypothesis was partially supported in analysis of the career maturity and attitude toward work

scores. A significant main effect for sex was evidenced on the employment-seeking skills subtest of the CDS ($F=4.231$, $df=1,140$, $p<.05$), where females scored higher than males ($\bar{x}=7.23$ and 6.78 respectively). Significant main effects for sex were also found on eight ATWOW subscales. The results are displayed in Table 8. Males scored significantly higher than females on the diligence, positive employer characteristics, independence, money, locus of control, confidence and unemployment subscales, while females scored higher on interest and social relations.

Hypothesis 6 stated that there are significant differences between the mean career maturity scores and the mean attitude toward work scores of grade 12 students enrolled in academic and general programs. This hypothesis was partially supported in analysis of the career maturity scores. Main effects for curriculum program were found on three CDS subtests: self-evaluation and development skills, career decision-making skills and work-effectiveness skills. Results are summarized in Table 9. Academic students scored significantly higher than general students on all three subtests. However, results obtained on the attitude toward work scores rejected hypothesis 6 as no main effects for curriculum program were found on the ATWOW subscales.

Table 8

Significant Means for the Attitudes Toward the World of Work Subscales by Sex for Rural & Urban Students

Subscales	Sex	n	$\bar{X}$	SD	F
Interest	Males	74	19.28	2.02	4.872*
	Females	74	20.01	1.95	
Diligence	Males	74	21.65	2.32	4.034*
	Females	74	20.84	2.20	
Positive Employer Characteristics	Males	74	17.95	2.56	5.041*
	Females	74	17.04	2.31	
Independence	Males	74	19.26	2.19	9.615**
	Females	74	18.03	2.63	
Money	Males	74	17.24	2.82	17.930***
	Females	74	15.55	2.12	
Locus of Control	Males	74	14.20	3.22	6.214*
	Females	74	12.96	2.99	
Confidence	Males	74	17.70	2.45	6.936**
	Females	74	16.61	2.56	
Social Relations	Males	74	18.62	2.88	7.664**
	Females	74	19.85	2.46	
Attitudes Towards Unemployment	Males	74	15.74	3.11	6.009*
	Females	74	14.50	3.03	

* $p<.05$
** $p<.01$
*** $p<.001$
df=1,140

Table 9

Results of ANOVA for Curriculum Program Factor and Career Development Survey for Rural and Urban Students

CDS Subtests	Curriculum Program	n	$\bar{X}$	SD	F
Self-Evaluation and Development Skills	Academic	98	7.80	1.79	17.789***
	General	5	6.32	1.87	
Career-Awareness Skills	Academic	98	6.73	1.48	
	General	50	6.16	1.52	
Career Decision-Making Skills	Academic	98	6.26	1.80	7.427**
	General	50	5.30	1.83	
Employment-Seeking Skills	Academic	98	7.12	1.38	
	General	50	6.78	1.28	
Work-Effectiveness Skills	Academic	98	8.36	1.18	4.912*
	General	50	7.86	1.44	

* $p<.05$
** $p<.01$
*** $p<.001$
df=1,140

Hypothesis 7 stated that there are significant differences between the mean career maturity scores and the mean attitude toward work scores of rural and urban grade 12 students. This hypothesis was partially supported. A significant main effect for location was found on the self-evaluation and development skills subtest of the CDS, as shown in Table 10. Rural students scored significantly higher on this subtest than did urban students. Four significant main effects for location were also revealed in analysis of ATWOW scores (see Table 11). Urban students scored higher than rural students on laziness, money and negative employer characteristics, and scored lower on the diligence subscale.

Analysis of CDS scores revealed two significant three-way interactions. The three-way interaction on the self-evaluation and development skills subtest ($F=4.718$, $df=1,140$, $p<.05$) showed that sex and curriculum program interacted differently across locations (see Figure 7). Rural males in the academic program scored higher than rural females, while in the general program, females scored higher than males. In the urban sample, females in the academic program scored higher than males. In contrast, males in the general program scored higher than females. The three-way interaction on the work-effectiveness subtest ($F=5.715$, $df=1,140$, $p<.05$) was also analyzed by location (see

Table 10

Results of ANOVA for Location Factor and Career Development Survey for Rural and Urban Students

CDS Subtests	Location	n	$\bar{X}$	SD	F
Self-Evaluation and Development Skills	Rural	65	7.97	1.89	11.314**
	Urban	83	6.77	1.83	
Career-Awareness Skills	Rural	65	6.86	1.20	
	Urban	83	6.29	1.67	
Career Decision-Making Skills	Rural	65	6.29	1.78	
	Urban	83	5.65	1.89	
Employment-Seeking Skills	Rural	65	7.15	1.41	
	Urban	83	6.89	1.30	
Work-Effectiveness Skills	Rural	65	8.25	1.39	
	Urban	83	8.14	1.21	

** $p<.01$
df=1,140

Table 11

Significant Means for the Attitude Toward the World of Work Subscales by Location

Subscales	Location	n	$\bar{X}$	SD	F
Diligence	Rural	65	21.65	2.28	4.034*
	Urban	83	20.84	2.19	
Laziness	Rural	65	9.74	2.93	5.053*
	Urban	83	11.02	3.07	
Money	Rural	65	15.88	2.63	5.247*
	Urban	83	16.81	2.40	
Negative Employer Characteristics	Rural	65	13.89	2.76	12.066**
	Urban	83	15.77	3.43	

* $p<.05$
** $p<.01$
df=1,140

Figure 7

Self-Evaluation and Development Subtest Scores as a Function of Sex, Curriculum and Location Showing a Significant Three-way Interaction

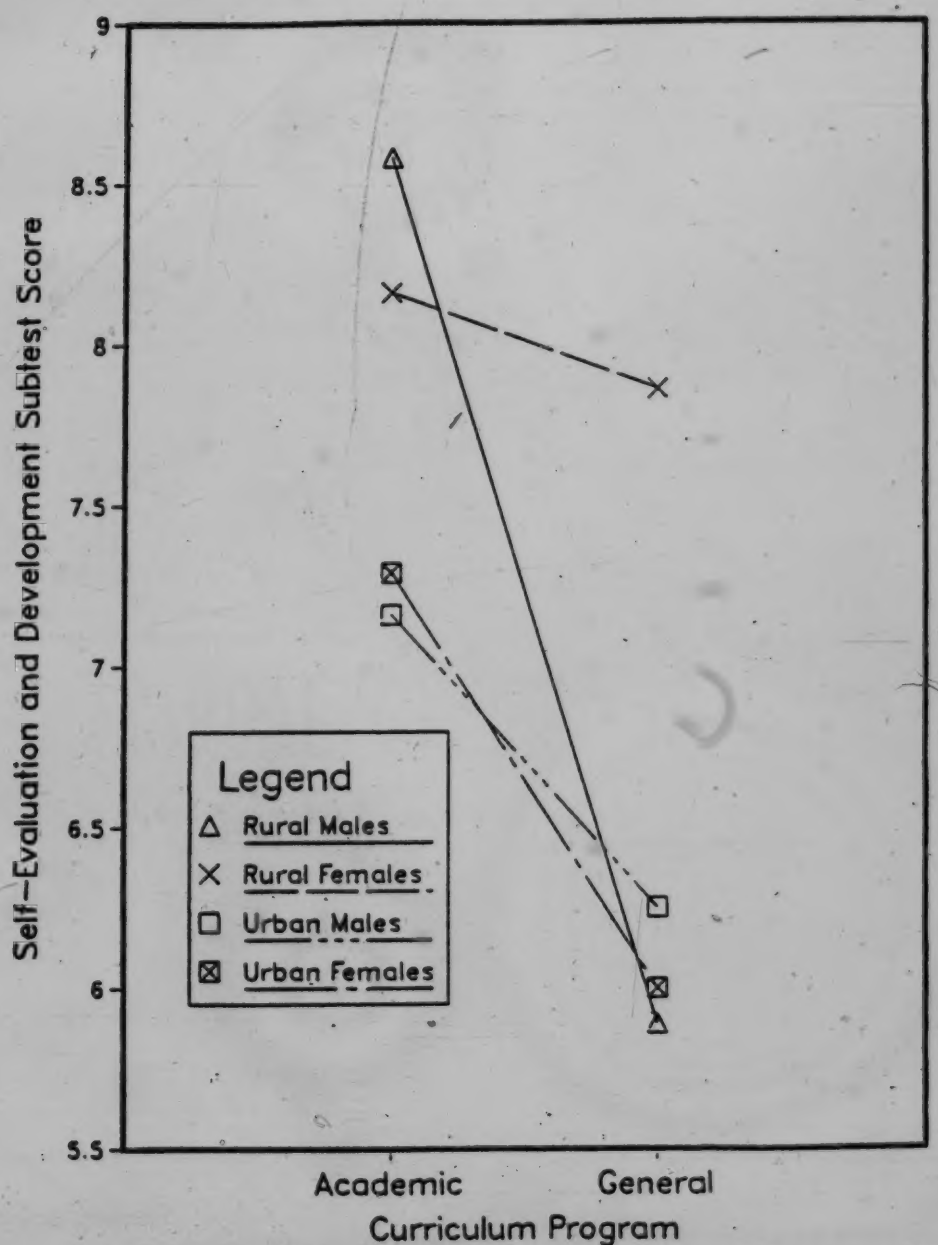


Figure 8). In the sample of rural students, males in the academic program scored higher than females, while females in the general group scored higher than males. In the urban group, females in the academic and general categories scored higher than males.

Two significant interactions were found in analysis of ATWOW scores. A significant two-way interaction of sex and curriculum program was found on the diligence subscale ($F=4.407$, $df=1,140$, $p<.05$) (see Figure 9). Females in the academic program scored higher than males, while in the general program females scored higher than males. Females in the academic program also scored higher than females in the general program, while males in the general program scored higher than males in the academic program.

A significant three-way interaction was also found on the money subscale ($F=5.090$, $df=1,140$, $p<.05$). Sex and curriculum program interacted differently across locations (see Figure 10). In the rural group, males in the academic program scored lower than did males in the general program, while females in the academic program scored higher than females in the general program. In the urban sample, males in the academic program scored higher than did males in the general program, while females in the academic program scored lower than females in the general program. Urban students scored higher than rural students in all categories except

Figure 8

Work-Effectiveness Subtest Scores as a Function of Sex, Curriculum and Location Showing a Significant Three-way Interaction

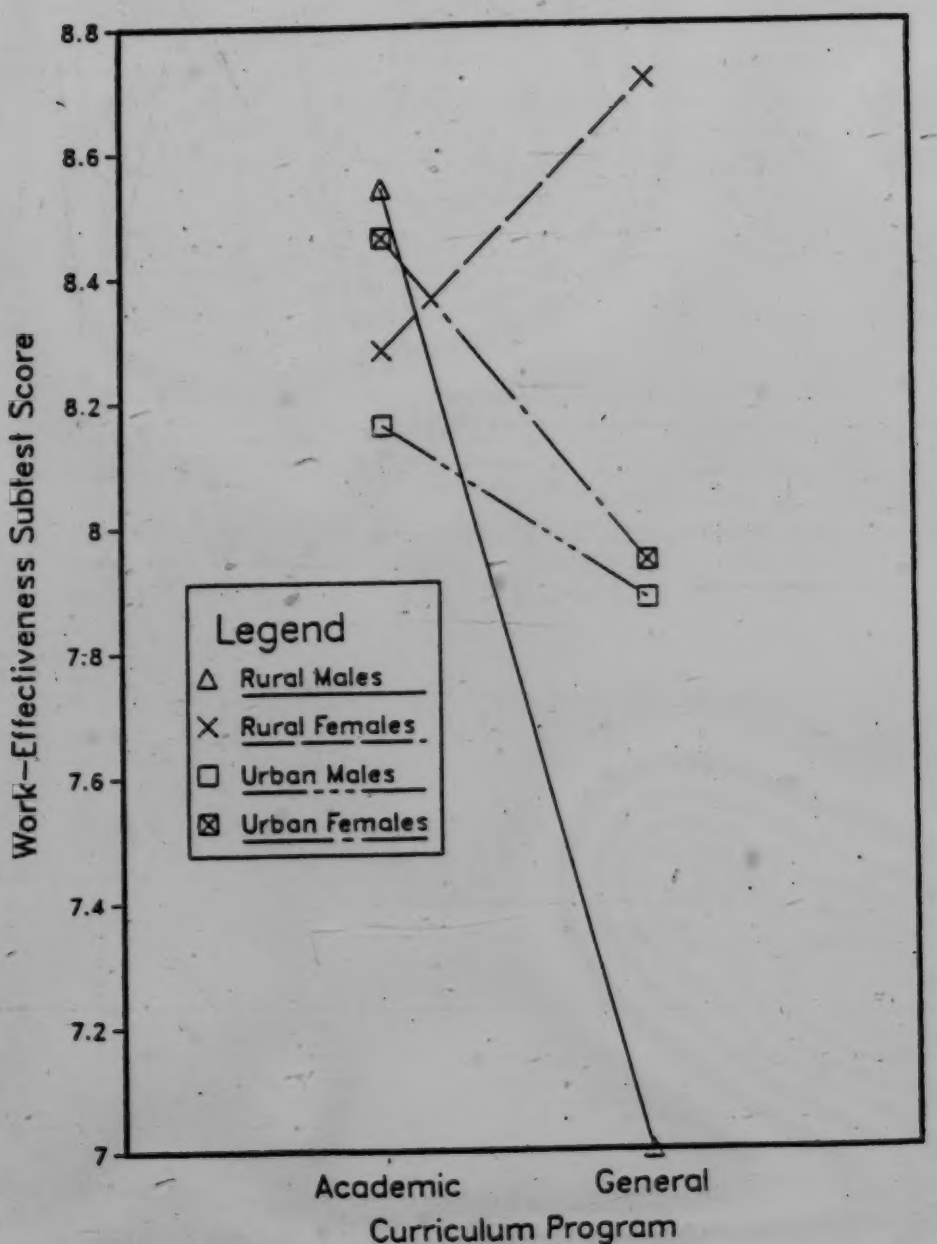


Figure 9

Diligence Subscale Scores as a Function of Sex and Curriculum Showing a Significant Two-way Interaction

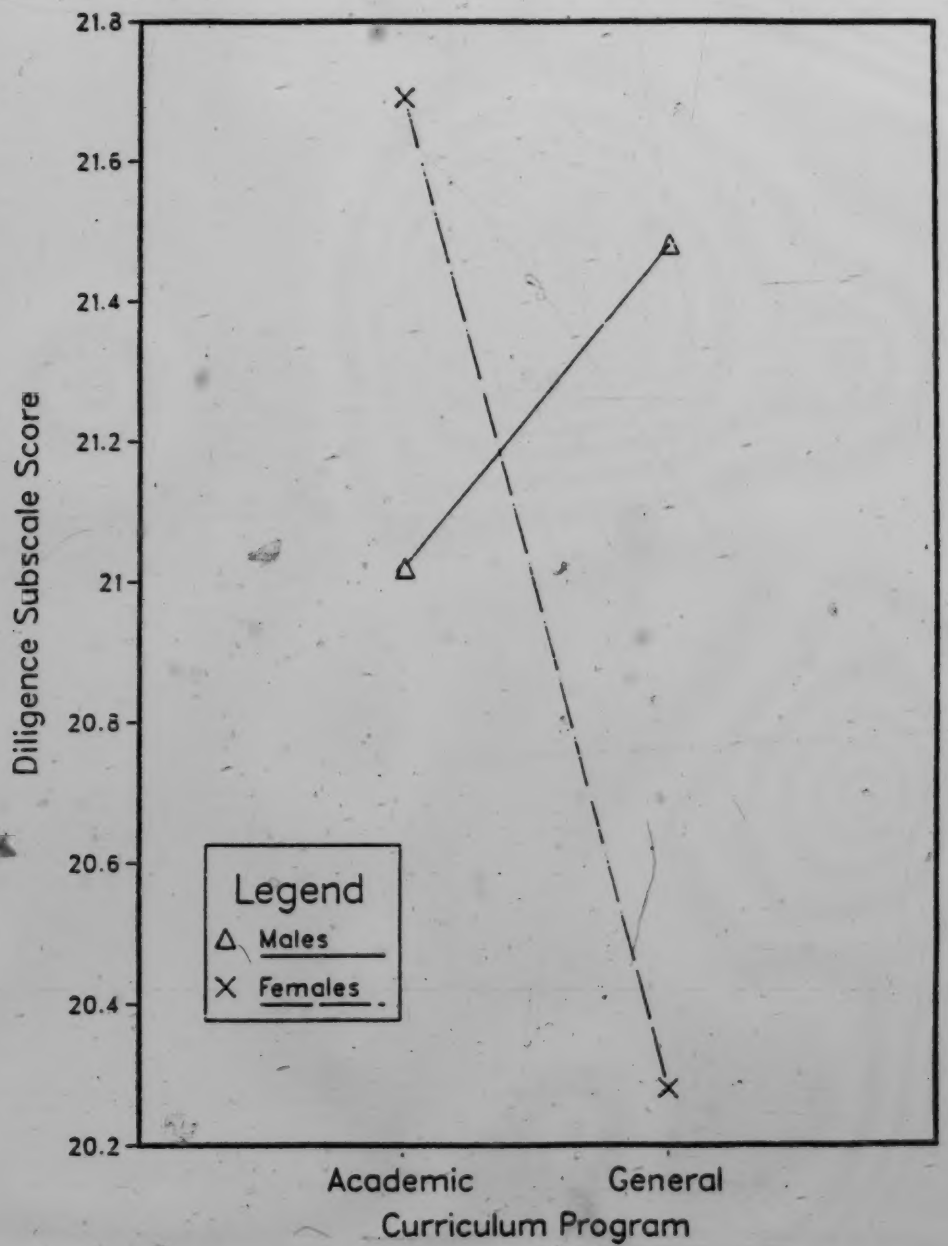
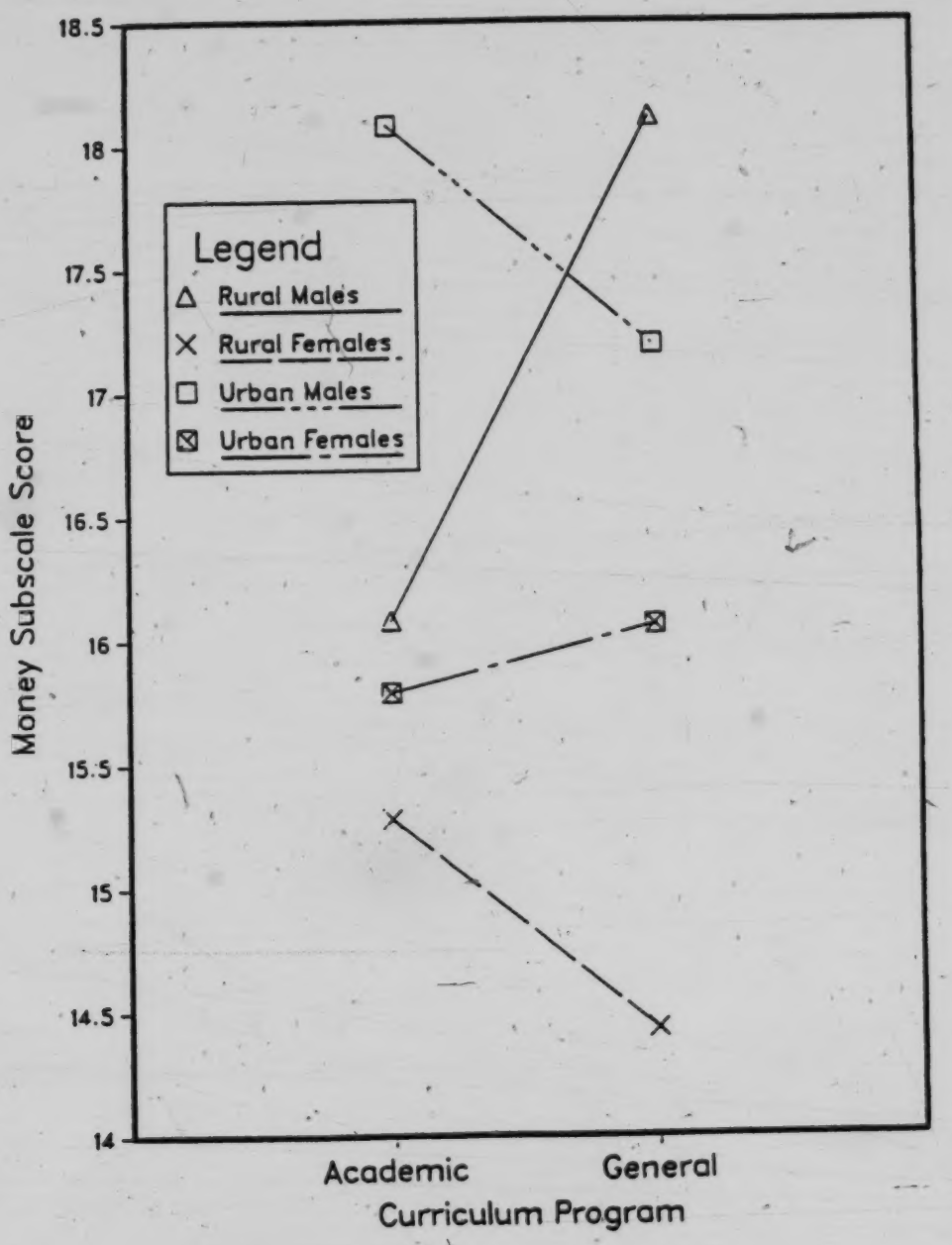


Figure 10

Money Subscale Scores as a Function of Sex, Curriculum and Location Showing a Significant Three-way Interaction



for males in the general program.

Chapter V

Discussion

The results of this study have demonstrated the existence of individual differences in the career maturity and work attitudes of grade 12 students. While there are numerous factors which may have influenced these aspects of their career development, this discussion will focus primarily on the influence of gender, curriculum program and location.

Career Maturity and Work Attitudes

The Influence of Gender

Hypotheses 1,3 and 5 stated that sex differences would be apparent in the career maturity and attitude toward work scores of male and female grade 12 students living in rural and urban Alberta. While sex differences were found on a number of the ATWOW subscales, very few sex differences were evident in analysis of CDS subtest scores. Much of the existing research revealed that high-school females displayed higher levels of career maturity than did their male peers. While females in the academic and general programs in rural and urban areas scored higher than males on the employment-seeking skills subtest, no significant sex

differences were evident in the urban sample consisting of students from four curricula programs. The significant differences found on the self-evaluation and development and work-effectiveness skills subtests resulted from the interaction of sex, curriculum program and/or location. The present findings therefore show little evidence of sex differences in overall career maturity. This contradicts the findings of Chodzinski (1983), Herr & Enderlein (1976), Khan & Alvi (1984, 1985), McNair & Brown (1983), Super & Nevill (1984) and Thompson et al. (1981) who found greater sex differences favouring females.

Supplementary data from the Student Information Questionnaire (SIQ) were analyzed to assist in interpretation of results. Frequency distributions of SIQ responses did not reveal any possible explanations for the fact that females displayed greater employment-seeking skills. While a higher percentage of females reported that they did, or will do, a work experience placement than males (46% versus 34%, respectively), fewer females than males worked full-time last summer (25% versus 34%), and fewer females work part-time while attending school (20% versus 47%). A positive relationship between obtaining employment and greater employment-seeking skills was not apparent. However, 81% of females compared to 62% of males had decided on the program they wanted to take at a post-secondary institution or the

area in which they wanted to work, which may have enhanced their career planning knowledge.

In terms of occupational and educational aspirations, males and females responded very similarily. Sixty percent of males and 62% of females reported that they plan to acquire post-secondary education after completing high school. These percentages are higher than those reported by Friesen (1981) in his longitudinal study of Edmonton high school students. He found that 45.8% of males and 56.3% of females planned to attend university. The fact that the present study included a broader range of post-secondary institutions may have increased this percentage. The employment situation was also more positive in 1981 which may have tempted more students, especially males, to choose work in favour of post-secondary education. Whether or not 60-62% of the students in the present study will actually attend post-secondary education is uncertain, for as Bibby & Posterski (1985) revealed, only 40% of the "university bound" students in their study actually attended university following graduation from high school.

The students were also asked to indicate the job that interested them most as a career. The first job listed by each student was categorized by the level of specific vocational preparation required (as outlined in the Canadian Classification and Dictionary of Occupations (CCDO),

Employment and Immigration Canada, 1971). Fifty-nine percent of females and 31% of males listed jobs which required over one year of vocational preparation. Of greater interest may be the fact that 62% of males versus 27% of females were unclear in their response, did not know, or did not respond. This suggests that grade 12 males have less clear or well defined career aspirations than their female peers, a finding which may help to explain their overall lower level of skill in employment-seeking. Of interest to the present researcher was the fact that while 42% of females aspired to four traditionally female occupations (teacher, nurse, secretary, hairdresser), only one female, a rural 17 year old, indicated "homemaker" as her career choice. However, there were no questions on the SIQ or on the CDS regarding the role of women in the work force, their career planning involvement or their committment to family and work.

While relatively few sex differences were revealed in career maturity as measured by the CDS, males and females differed significantly in their attitudes toward work. Males placed significantly higher value on money and independence than did females, while females placed higher value on interest and social relations. When scores of all academic and general students were analyzed, males were found to be more confident, placed a higher value on job security and were more concerned about unemployment than females. Females

were more critical of laziness on the job and felt to a lesser degree than males that getting and holding a job was largely outside of their control. Males scored significantly higher on some of the scales representing extrinsic work values (eg., money, job security) and females scored higher on some of those representing intrinsic work values (eg., interest, social relations). These findings are generally consistent with those of Maguire et al. (1982, 1983) and Pautler & Lewko (1985). However, a few differences were noted. In the present study males and females did not differ significantly in ambition, and females viewed employers as less honest and fair than did males. These results are not consistent with those obtained in the aforementioned studies.

It is important to note that while many of these gender differences are statistically significant, there is actually very little difference between some of the scores obtained by males and females. For example, the significant difference between scores obtained by urban males and females in job security was only 0.19 of a point. Likewise, the significant differences between the scores obtained by all males and females in interest and positive employer characteristics were small (0.73 and 0.91 of a point, respectively). Caution must be exercised in interpreting the significant differences found on the ATWOW subscales,

especially where the actual differences between groups do not exceed one point.

The Influence of Curriculum Program

Hypotheses 2,4 and 6 stated that curriculum program differences would be apparent in the career maturity and attitude toward work scores of grade 12 students. Curriculum program showed the most influence in the urban sample where four curricula groups were compared. The most consistent finding was that the technical group scored significantly lower than students in the academic, business and general groups on all five subtests of the CDS. Greater differences were found between the technical and the academic, business and general groups by Khan & Alvi (1985), although the trend was similar. There are a few possible explanations for the fact that technical students showed less career maturity. The suggestion put forth by Herr & Enderlein (1976) that intelligence and career maturity are highly correlated may be relevant as some of the technical students were enrolled in academic-occupational programs which suggested that they have had difficulty meeting the demands of the regular school program. Khan & Alvi (1984, 1985) found that students in academic or high ability groups performed better on tests of career maturity than low ability groups. If technical students represent a low ability group, then these results are consistent with Khan & Alvi's

findings. School achievement may have been an influential factor. Forty percent of academic students compared with 24% of technical students reported having an average between 75-89%. The fact that these students are enrolled in Industrial Education and/or Academic-Occupational programs which aim to enhance their career development makes these findings somewhat surprising. Sixty-one percent of the technical students reported that they did, or will do, a work-experience placement. It was not possible to determine the extent to which the work-experience placement enhanced career development, but the current findings suggest that technical students require further skill training in all of the areas relating to career maturity.

In examining the SIQ responses, a number of facts emerged which may help to explain the fact that technical students were less career mature than other students. Technical students showed the least amount of satisfaction regarding school guidance services. When asked "Who helped you most with career guidance and planning?", 25% of technical students responded "myself", as compared with 4-10% of such responses in the other three groups. While a similar percentage of technical students responded that a Guidance Counsellor had helped most (14% compared to 16-24% in the other groups), only 8% indicated that their parents had helped most (as compared with 22-28% in the other curricula

groups). Possibly the parents of technical students held different work attitudes and values than parents of students in the other groups, or were not as supportive of their child's choice of a more practical, less academic curriculum route. Interestingly, 77% of students in the technical program felt ready to enter the world of work, compared with 48% in the academic, 52% in the business and 60% in the general groups.

Differences between the academic, business and general groups also emerged on a few other subtests. The academic group scored significantly higher than the general and business groups on self-evaluation and development, and higher than the general group in career decision-making. While these differences favouring academic students are generally consistent with the findings of Herr & Enderlein (1976) and Khan & Alvi (1984, 1985), there were not as many differences between groups in the present study. For example, in their 1984 study of academic and general students, Khan & Alvi found significant differences between the groups on all five subtests, while in their 1985 study of students from four curricula groups, significant contrasts between academic and general groups were revealed on all subtests except employment-seeking skills. Significant three-way interactions on the self-evaluation and development and work-effectiveness skills subtests also revealed that, in

rural and urban locations, males in academic programs scored higher than males in general programs. Similar results were found for females, except for the rural general group which scored higher than the academic group on the work-effectiveness subtest. The results of the present study indicate that while career maturity differences between students in different curricula programs do exist, they are less pronounced than in earlier studies.

Students from the four curricula programs in the urban sample did not differ significantly on any of the ATWOW subscales, nor were differences evident between all academic and general students in the sample. A few of the significant interactions of sex and curriculum program did, however, provide some additional information regarding the work attitudes of students in various curricula programs. Females in the academic program were most diligent, while females in the general program had the lowest diligence scores. Males in the general program scored higher than did males in the academic program on this subtest. The fact that 79% of academic students versus 46% of general students plan to obtain post-secondary education may help to explain this, especially in the case of females who may feel that they have to work harder than males to gain university acceptance and to compete for jobs. Females in the academic program indicated to a greater extent than males in the academic

program that getting and holding a job was largely a matter outside of their control. Males in the general program scored higher that did males in the academic program on the money subscale, while females in the general program scored lower than females in the academic program. These results are somewhat inconsistent with the findings of Maguire et al. (1983) who found that academic students valued money less than students in other curricula programs. Perhaps males in academic programs have downplayed the immediate importance of money in favour of further education and later financial reward.

The Influence of Location

Hypothesis 7 stated that there would be significant differences between the mean career maturity and attitude toward work scores of rural and urban grade 12 students. This hypothesis was partially supported. Rural students scored significantly higher than urban ones on the self-evaluation and development skills subtest, and although significant differences were not found on the remaining CDS subtests, rural students scored slightly higher than urban students on all subtests. This contradicts the findings of Achebe (1982) and generally supports the results obtained by Super & Overstreet (1960) which revealed that rural males had higher levels of career maturity than urban males. This hypothesis can now be extended to include rural

females. Possibly the traditional stereotype of rural children assisting their parents on the farm and having more responsibilities assigned to them at an early age is a valid one, and one which has positively influenced their career development. Osipow's (1983) suggestion that perhaps the rural boys in Super & Overstreet's (1960) study "had work experience on farms and were likely to follow family farming patterns which were already clear to them" (p.162) is not as realistic an explanation for differences in the present study. Students who live on farms seem to have recognized that they may not be able to earn a living there when they graduate. Seventy-eight percent of all rural students reported that they plan to move away from their community after completing high school because educational or employment resources are not available locally. Only three males out of the 88 rural students indicated farming as the job that interested them most as a career.

The fact that rural students scored slightly higher than urban students on career-awareness contradicts the findings of Borman (1981), Kammer (1985), Long (1982) and Rich (1979) who suggested that rural students may lack exposure to, and knowledge of, many occupations. Since the career-awareness skills subtest includes relating abilities, values and societal needs to career selection and recognizing the importance and relevance of school programs to the

requirements of occupations, it would appear that rural students are knowledgeable about these cognitive aspects of career awareness. This subtest does not, however, examine the extent of their knowledge regarding the wide range of occupations available to them. Responses obtained on the SIQ regarding occupational aspirations appeared to reflect a wide range of jobs. The fact that the rural communities in which the students live are less than 170 km from Edmonton may have been influential, as students would likely receive a lot of exposure to urban occupations. Very different results may have been obtained if rural students living in remote, isolated regions of Alberta had been studied.

A number of authors (Breton, 1972; Dunne et al., 1981; Middleton & Grigg, 1959) examined the educational and occupational aspirations of youth, and found that rural youth, especially males, had lower aspirations. These findings were not evident in the present study. Seventy-two percent of the rural students indicated that they plan to obtain post-secondary education after completing high school as compared to 55% of urban students. The fact that the urban sample consisted of students in the business and technical groups, which showed the lowest percentage of students planning to obtain post-secondary education (40% and 44% respectively), may have lowered the overall percentage for the urban sample. Fifty percent of rural students and

41% of urban students indicated job choices which require more than one year of specific vocational preparation, which revealed little difference across locations. However, 52% of urban students compared with 38% of rural students were unclear in their response, did not know, or did not respond when asked what job interested them most as a career. This suggests that overall, urban students had less well-defined occupational aspirations. Perhaps the urban students saw more career options available to them, and therefore found it more difficult to make career choices and to set occupational goals. Only a few ATWOW scales showed differences relating to location. Rural students scored significantly higher on the diligence scale, and were more critical of laziness on the job than urban students. Rural students generally seemed to possess a stronger "work ethic", perhaps because they have witnessed the demands and rewards of hard physical work in their farming communities. Rural students who might know many of the employers in their community may be less likely than urban students to see them as greedy and unfair, and may be more understanding of the problems facing employers, especially in the troubled agriculture and oil and gas industries. Again it is important to note that the "significant" differences between the scores of the rural and urban students on the diligence and money subscales were less than one point. These

differences are small, and may not represent meaningful variations in the work attitudes of rural and urban students.

These findings are inconsistant with those of Savage (1983) who found that rural students had lower affective competency scores and reflected lesser job concern. The rural youth surveyed appear very different from the youth in rural South Dakota described by Moriarty (1981). There was no evidence in the present study to suggest that rural students were more independent, or more interested in the countryside than in academics. However, 30% of rural students compared with 18% of urban students indicated that their parents had helped them most with career guidance and planning which may be indicative of closer family ties and more parental involvement in their activites and decision-making.

Youth Unemployment and the School-Work Transition

The period of transition from school to work or further education seemed to be looked upon as a challenging, exciting, yet anxiety-provoking time for many of the students surveyed. One urban female student wrote, "I'm scared - everyone pressures me - asking about my future 'what are you going to do with your life?' It makes me nervous." Another rural female student stated, "I am afraid and I believe that

I lack experience and knowledge." Others portrayed a more optimistic picture as was illustrated in this statement by a rural student: "I am looking forward to achieving a career. I think I am capable of being fairly successful in the work force and well prepared as well." Despite the enthusiasm and optimism shown by some students, many of the subjects surveyed were concerned about youth unemployment. Seventy-two percent of rural and 57% of urban students responded that they would like to discuss this topic in the classroom.

In the present study only 56% of the subjects responded that they felt ready to enter the world of work. Many students indicated a need for more experience, knowledge and/or post-secondary education. A number of authors have commented on the merits of cooperative education (Maynard, 1985; OTF, 1983; Studd, 1984; Young, 1985) in helping to ease the school-work transition and to enhance career development. However, the technical, business and general curricula groups which had the highest percentages of students who had completed work-experience placements (56-62%) showed less overall career maturity than the academic group in which only 19% of the students had completed work experience placements. This may have been a result of intelligence, socioeconomic status or a number of other factors, and because there is no way to determine how the students would have performed without work experience, the efficacy of these placements

in enhancing career development cannot be determined. The work experience placements may be raising the confidence levels and decision-making abilities of students regarding work as 77% of technical students, 60% of general students and 52% of business students responded that they felt ready for work as compared to 48% of academic students. There is a possibility, however, that the work experience placements are not reflective of true work settings and are giving students a false impression of their work readiness. On the other hand, these placements may be providing students with affective work readiness skills that are not being assessed on standardized career maturity inventories.

The majority of the students surveyed were not satisfied with the amount of career guidance that they were receiving. Forestell (1985) cited the lack of trained guidance counsellors as one reason why smaller jurisdictions may be at a disadvantage in developing, implementing or expanding career services. However, 55% of the students at Daysland School, who receive the services of a school counsellor only one day per week, reported that they were satisfied with the amount of career guidance thay they were receiving. This compared with 30-31% of students from the other rural schools, and with 48% of satisfied students at M.E. Lazerte School and 40% at Jasper Place School. Many rural students indicated the need for more counselling services. A female

student from Daysland wrote, "We have only one counsellor who is here only one day a week. Although she does a good job, she is not here often enough." A male student from Sedgewick succinctly stated, "We simply need a guidance counsellor at school every day of the week." Some urban students were also sensitive to the time constraints placed on counsellors. One student wrote, "Counsellors are always pressed for time but are helpful. They need more information available for us though." Another urban student expressed her views regarding the career guidance services as follows: "Insufficient; only one day so far has been career goal related." What seemed clear from examination of the many responses was that students were asking for more assistance in career guidance and planning. Perhaps some students are not making the effort to seek out guidance services. However, maybe we as counsellors and educators need to initiate contact with more students who require this assistance. With the aid of other teachers and school administrators, we can offer our time, skills and understanding to help students cope with the transition from school to work or further education.

Significance of the Study

Practical Significance

This study has demonstrated the usefulness of career maturity and work attitude measures in assessing the career knowledge and attitudes of students in different curricula programs. Information regarding these components of career development might be helpful in determining career guidance and curriculum needs, and might aid in subsequent planning of programs and services. For example, scores on the CDS subtests revealed that, overall, the rural and urban students showed the most skill in work-effectiveness and the least skill in career-awareness and career decision-making. In view of the many personal and career decisions facing youth today, it seems imperative that students further develop these skills which are vital for career planning and job survival. Instruments such as the ATWOW inventory could prove useful in identifying work attitudes which may hamper a student's employability and work satisfaction.

The Student Information Questionnaire used in the present study has also provided information regarding the students' views of the career development services that are being provided in their respective schools. Many students expressed the need for more knowledge, work experience and career guidance. This suggests that there is a need for more

trained counsellors and career guidance services in the schools. Perhaps more community and school resources could also be utilized. As Germschied (1983) wrote:

> Language arts, science, mathematics and other conceptual, abstract and "uninteresting" subjects could be made more interesting and important areas for students to study if the relationship of these disciplines [to work] could be made more apparent. Invite an engineer to lunch; one can, in many ways, bring the world to the classroom. (p.17)

The SIQ was also useful in providing information about the future plans of the student and in assessing the resources that the student has used or has had available to assist him/her in career guidance and planning. This instrument, or a similar survey, could be used by teachers and counsellors to aid in identifying students who lack resources and who require further guidance counselling.

Teachers and counsellors could also use the information obtained on the SIQ to prompt discussion of coping strategies for adjusting to the school-work transition. Seventy-eight percent of rural and 11% of urban students plan to move away from their local community to work or pursue further education. Some of these students indicated that moving away added another dimension of fear and uncertainty to the school-work transition. Discussion of these topics would

likely become even more necessary for students living in more remote, isolated communities.

Theoretical Significance

This study had provided information on the extent to which studies involving urban youth in Edmonton can be generalized to the population of rural youth in Central Alberta. Very few significant differences emerged in this study between the rural and urban students, suggesting that they are quite similar in their level of career maturity and in their work attitudes. Curriculum program tended to have the most significant influence on career maturity. Academic students showed the most career maturity, as measured by the CDS, followed by students in the business, general and technical groups, respectively. Gender seemed to account for many of the differences in work attitudes. This study has provided information which may supplement the existing literature regarding the influence of gender, curriculum program and location on the career development of youth.

Some data has also been provided on the extent to which findings of studies conducted in Alberta can be generalized to other parts of Canada, and to regions where different economic climates may prevail. Scores on all ATWOW subscales were within one and a half points of scores obtained by Pautler & Lewko (1985) in their study of students from

northern Ontario (where negative economic conditions prevailed), and of scores reported by Maguire et al. (1983) who collected data on Alberta students in positive economic times. A statistical analysis of the scores would have to be performed to ascertain whether these differences were significant. Perhaps students in Alberta and northern Ontario hold similar work attitudes, even in the face of varying economic climates. Alternatively, the ATWOW subscales may not be adequate for discriminating subtle differences among these groups of students. Further research is required in these areas and in other parts of Canada before generalizations regarding Canadian youth can be made.

Students from Alberta and Ontario do appear to differ in their level of career maturity. The mean CDS scores of students from all four curricula programs in the present study were generally lower than those reported by Khan & Alvi (1985) in their study of youth in Ontario. However, the mean scores of all academic and general students surveyed in their 1984 study appeared similar. Statistical analysis of the scores would be required to ascertain whether significant differences in career maturity were apparent between students in Alberta and Ontario. Caution must be exercised in generalizing the results obtained in the present study to other Canadian youth until further research in other regions has been undertaken. With a few necessary changes in wording

to reflect the regional milieu, the CDS could be used Canada wide. It appears to be a valuable tool for assessing the career maturity of Canadian students.

Limitations of the Study

There are a few factors which may have reduced the validity of the study and which should be taken into account when interpreting the findings. First of all, intellectual ability and school achievement have been cited by Danziger (1983), Herr & Enderlein (1976), Jordaan & Heyde (1979), Khan & Alvi (1984, 1985) and Westbrook (1983) as powerful influences on career maturity. Although the self-reports of the students' grade point average provided some information on their academic performance, objective data (such as grades and psychometric test scores) from teachers or counsellors would have been helpful in interpreting the results. Since the data was collected anonymously, it was impossible for the experimenter to confirm this or any of the other self reported data on the Background Information Sheet or the SIQ.

Secondly, a number of students did not complete the Background Information Sheet or the SIQ. Although students were asked to provide information regarding parental employment and income (to assist in assessing the potential

influence of socioeconomic status), 57% of students did not respond to some or all of these items which severely limited the extent to which useful interpretations could be made. An interview format may have yielded further, more accurate information which would have increased the validity of the study.

Thirdly, the procedures varied slightly at Jasper Place School due to the fact that students could not be surveyed simultaneously. Although this did not appear to have effected the results, subtle differences may have been evident as a result of the small group atmosphere. The one and a half month time delay in data collection at Jasper Place School may also have introduced a threat to the internal validity of the study, as the students from Jasper Place School may have developed greater career maturity over this time period. The students at Jasper Place School may also have felt rushed to complete the surveys within their 67 minute class period. Although the students were told that the experimenter would return to their class at a later date if any students were not finished, some students appeared to be rushing to complete the final instrument (the SIQ) by the end of the class period.

Recommendations for Further Research

The results of the present study seem to have the following implications for future research in career education and career counselling.

1. Research is required to ascertain whether more emphasis should be placed on providing students with career information and work experience, and to determine whether increasing the amount of career guidance counselling that students receive would increase their level of career maturity and confidence. Many students expressed the need for more work experience and career guidance relating to occupational information, decision-making and current job availability.

2. Research is needed to investigate whether work experience placements are significantly enhancing the development of career skills and preparing students for the world of work. Follow-up studies would assist in assessing the usefulness of career maturity and work attitude inventories in predicting success in the school-work transition and in the competitive workplace. Perhaps the cognitive and affective skills learned through work experience are not being assessed on the standardized measures of career maturity currently available. The group of technical students who scored lowest on the CDS subtests

contained the highest percentage of students who felt ready to enter the world of work. Sixty-one percent of these students reported that they had done, or will do, a work experience placement.

3. In view of the probable time and budgetary constraints facing counsellors, teachers and administrators, more research is required to develop ways in which school and community resources would be more fully utilized, especially in the rural areas where the services of guidance counsellors are more limited. The majority of the rural and urban students surveyed were not satisfied with the amount of career guidance that they were receiving.

4. Further research is required to learn more about the career maturity and work attitudes of students in other regions of Canada. While the CDS and ATWOW instruments appear be to valuable tools for the assessment of aspects of career development, these relatively new measures require further field testing across Canada. Through continued use of these instruments we should be able to learn more about the career development of our Canadian youth.

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Appendix A

Definition of Criteria for High School Diplomas and Certificates.

HIGH SCHOOL DIPLOMAS: All students who meet the following requirements and have a total of 100 credits receive a General High School Diploma:

15 credits in English, including English 30 or 33
10 credits in Social Studies, including Social Studies 10
2 credits in Physical Education
5 credits in Mathematics
3 credits in Science
15 credits in Grade 12 courses, including English 30 or 33

To earn an Advanced High School Diploma, the student must also complete English 30, Social Studies 30, Mathematics 30, and one of Biology 30, Chemistry 30, or Physics 30.
These diplomas are issued by Alberta Education.

BUSINESS EDUCATION CERTIFICATE

Senior high school students will be eligible to receive a Business Education Certificate provided that they:

1. earn 30 credits in Business courses;
2. complete a minimum of SIX approved courses in the Business Education program;

Appendix A (continued)

3. earn a mark of 50% or better in all qualifying courses;
4. have completed at least two Business Education courses which are sequential to the 12 level.

This certificate is issued by the school.

VOCATIONAL CERTIFICATE

Senior high school students are eligible to receive a Vocational Education Certificate provided that they:

1. earn 30 credits in Industrial Education;
2. obtain a 50% standing in the qualifying subjects;
3. obtain a 50% standing in a minimum of 10 Vocational Education credits at the Grade 12 level.

This certificate is issued by the school.

Note. From M.E. Lazerte Composite High School Course Outline (pp.6-7) by M.E. Lazerte Composite High School, 1985, Edmonton: M.E. Composite High School.

Appendix B

Table B-1

Career Guidance Resources in Rural Schools

Career Guidance Resources Available	Location of School		
	Daysland	Sedgewick	Thorhild
People			
Guidance Counsellor	X	X	
Teacher	X	X	X
Other school personnel	X	X	
Employers or other people in the community	X		
Other	X (school psychologist)		X (principal)
Materials			
Tests and inventories	X	X	X
Printed informational materials	X	X	X
Audio-visual aids	X		X
Computer-assisted programs			X
Other			

Table B-1 (continued)

Career Guidance Resources Avaiable	Location of School		
	Daysland	Sedgewick	Thorhild
Curriculum			
Career education courses for credit			
Career education unit(s) in another course	X	X	
Workshops on career guidance and planning	X	X	
Field trips to work sites			X
Work experience	X	X	X
Other		X (U of A orientations, NAIT Open House)	

Note. Information obtained from school principals on the form illustrated in Appendix D.

Table B-2

Career Guidance Resources in Urban Schools

Career Guidance Resources Available	School	
	Jasper Place	M.E. Lazerte
People		
Guidance Counsellor	X	X
Teacher	X	X
Other school personnel	X	X
Employers or other people in the community	X	X
Other		
Materials		
Test and inventories	X	X
Printed informational materials	X	X
Audio-visual aids		X
Computer-assisted programs		X
Other		X

Table B-2 (continued)

Career Guidance Resources Available	School	
	Jasper Place	M.E. Lazerte
Curriculum		
Career education course(s) for credit		
Career education unit(s) in another course	X	X
Workshops on career guidance and planning	X	X
Field trips to work sites	X	X
Work experience	X	X
Other	X (Work Study)	X (Community service and volunteer programs)

Note. Information obtained from school principals on the form illustrated in Appendix D.

Appendix C

Table C-1

Community Profiles of Rural Areas

Demographic Variables	Location		
	Daysland	Sedgewick	Thorhild
Population (1985)[a]	709	923	566
Distance from major centres[b]	136km (85mi) southeast of Edmonton; 40km (25mi) southeast of Camrose	170km (105mi) southeast of Edmonton; 82km (51mi) southeast of Camrose	90km (56mi) northeast of Edmonton
Economic Base/ Resources[b]	Agriculture Petroleum	Agriculture Oil, Gas	Data Unavailable
Predominant Ethnic Groups[c]	British(37%) Ukrainian(18%) German(15%)	British(55%) Scandinavian (17%)	Ukrainian(38%) British(19%)

Table C-1 (continued)

[a] From Alberta Municipal Affairs Official Population List by Alberta Municipal Affairs, 1985, Alberta: Municipal Administrative Services Division. (Populations reported do not include persons residing on Indian Reserves.)

[b] From Alberta Locations by Alberta Tourism and Small Business, 1983.

[c] From Statistics Canada, 1981, Statistics Canada Census. (Refers to the ethnic or cultural group to which the respondent or respondent's ancestors belonged on first coming to North America.)

Table C-2

Reported Educational Patterns of Parents of Rural Students

	Location of School		
Education Level of Parents	Daysland	Sedgewick	Thorhild
Less than grade 9	17.5%	13%	5%
Grades 9-13 (No certificate)	27.5%	26%	23%
Grades 9-13 (certificate)	22.5%	27%	29%
Trades certificate or diploma	2.5%	0	7%
Other non-university, no certificate	5.0%	0	2%
Other non-university, certificate	0	1%	0
University, no degree	0	3%	3%
University, with degree	15%	10%	5%
Not indicated, or unable to classify	10%	20%	26%

Note. From data obtained on the Background Information Sheet.

Table C-3

Community Profile of Edmonton

Demographic Variables	Location Edmonton
Population (1985)[a]	560,085
Distance from Major Centres[b]	297 km (185 mi) North of Calgary
Economic Base/ Resources[b]	Manufacturing, Retail Trade
Predominant Ethnic Groups[c]	British (38%) Ukrainian (10%) German (8%)

[a] From Alberta Municipal Affairs Official Population List by Alberta Municipal Affairs, 1985, Alberta: Municipal Administrative Services Division. (Populations reported do not include persons residing on Indian Reserves.)

Table C-3 (continued)

[b] From Alberta Locations by Alberta Tourism and Small Business, 1983.

[c] From Statistics Canada, 1981 Statistics Canada Census. (Refers to the ethnic or cultural group to which the respondent or the respondent's ancestors belonged on first coming to North America.)

Table C-4

Reported Educational Patterns of Parents of Urban Students

	School	
Education Level of Parents	Jasper Place	M.E. Lazerte
Less than grade 9	7%	14%
Grades 9-13 (No certificate)	11.5%	17%
Grades 9-13 (Certificate)	21.5%	28%
Trades certificate or diploma	1%	0
Other non-university, no certificate	7%	2%
Other non-university, certificate	2%	1%
University, no degree	2%	6%
University, with degree	6%	4%
Not indicated, or unable to classify	42%	28%

Note. From data obtained on the Background Information Sheet.

Appendix D

School Data

1. How are each of the following programs defined in your school?

   Academic:

   General:

   Technical/Trades:

   Business:

2. What is the educational emphasis, or rationale, in your school?

3. The following is a list of possible career guidance resources. Please indicate (✓) all the resources that are available at your school.

   People

   ( ) Guidance Counsellor
   ( ) Teacher
   ( ) Other school personnel (eg. Principal, Librarian, Secretary, etc.)
   ( ) Employers or other people in the community who came to your school to discuss their companies or jobs.
   ( ) Other _____

Appendix D (continued)

Materials

( ) Tests and inventories (e.g. Interest and Aptitude Tests, Work Values Inventories, etc.)
( ) Printed informational materials (e.g. booklets, brochures, directories, library books, etc.)
( ) Audio-visual aids (e.g. films, audio-tapes, etc.)
( ) Computer-assisted Programs
( ) Other _____

Curriculum

( ) Career education course(s) for credit
( ) Career education unit(s) in another course (e.g. Health, English, Social Studies, etc.)
( ) Workshop(s) on career-guidance and planning
( ) Field trip(s) to work sites
( ) Work experience
( ) Other _____

THANK YOU!

Appendix E

Definition of Criteria for Candidates of the Academic-Occupational Program

The Academic-Occupational program is intended for students who:

(a) do not or are not expected to qualify for entry into a regular secondary school program;

(b) have a record of low achievement;

(c) are 13 years of age or older on September 1;

(d) have the written consent of their parents or guardian to register for such courses/programs.

Note. From Program Policy Manual (p.36) by Alberta Education, 1985b.

Appendix F

Survey Instruments

Career Development Survey

General Instructions:

This survey was developed to assess the career skills of secondary school students. There are fifty (50) multiple choice items in this survey, each having four options A,B,C, D. Please read each item carefully and decide upon the BEST answer from the options given. Record your choice on the separate NCS answer sheet. You will use the top, right-hand portion of Side 1 to record your responses (1-50). Directions for marking your answers are given on Side 2. Please do not make any marks in the booklet. Remember to circle only ONE option. If you wish to change your answer, be sure to erase the first one completely. If you are not sure about an answer, use your judgement as to the best answer. There is no penalty for being wrong. Work as quickly as you can without being careless. Please answer all items using the pencil provided.

Thank You!

1. Safeway plans to open four chains in a new township backed up with one warehouse facility. If there were 15 equally qualified applicants for each of the following jobs they advertised, for which job would there be MOST competition?

   A Store Manager
   B Payroll Clerk
   C Cashier
   D Warehouse Manager

2. In preparing a letter to enquire about a job which of the following should NOT be mentioned?

   A Your education and training
   B How desperately you need the job
   C Your previous work experiences
   D The kind of job you are looking for

3. If you are being interviewed as a payroll clerk, which of the following questions would be MOST appropriate for you to ask the personnel manager?

   A Will you pay me $300 a week?
   B Does the company provide any fringe benefits, such as, health care, pension, etc.?
   C Will you allow me two-week holidays at Christmas time?
   D Will you promote me within six months if my work is satisfactory?

4. Martha's goal is to become an astronomer. She is looking for a summer job during her first year in college. Which of the following summer jobs would probably provide her the MOST useful experience in terms of her long-term career aspirations?

   A Selling tickets at the Edmonton Space Sciences Centre.
   B Assisting a professor of astronomy in his research work.
   C Cataloguing new books on astronomy and astrophysics in a library.
   D Serving as a guide at the Provincial Museum of Alberta.

5. A major auto manufacturer is faced with a possible shut-down because of financial difficulties. What will be its MOST likely effect?

A People will turn to other means of transportation.
B It will increase demand for foreign-made cars.
C Most auto workers will consider a career change.
D There will be more competition for jobs with other auto makers.

6. When applying for a job, it is expected that you will submit a resumé, that is, a brief statement outlining your work experience and educational qualifications. Which one of the following items would NOT be proper to include in a resumé?

A Names of your previous employers.
B Your parents' occupations.
C Your present address.
D Any special training acquired.

7. Before appearing for a job interview, which of the following is LEAST important for you to be concerned about?

A Whether the company plans to expand its operations.
B That you are appropriately dressed for the interview.
C How well your qualifications correspond with the company's requirements?
D Whether you can do the job.

8. If the things you like doing are found in a summer job at Nick's Garden Centre or Four Seasons Tree Nurseries, you will MOST likely be

A working indoors.
B working with ideas.
C working on week-ends.
D working in a uniform.

9. Jim is a mailroom clerk with a local company. He has to be away one day next week to do an important family business. Which of the following would be the MOST responsible thing for him to do?

   A Let someone else in his family worry about the problem.
   B Call in sick on the day he has to be away.
   C Talk to his supervisor about his plan and why he has to be away.
   D Simply stay away from work on that day and sort things out the next day.

10. Jane has just started work as an administrative assistant with Alberta Power. To be able to do particularly well in her new job, the following might help her EXCEPT

   A tell her boss in advance about assignments which she would dislike doing.
   B arrive on time each day to work.
   C show her willingness to stay late at work if needed.
   D take down notes on her work assignments rather than simply rely on memory.

11. Helen and Sharon work in the assembly department of a small appliances manufacturing company. Helen has been with the company for two years and is thus experienced. However, Sharon has joined the assembly department only recently. Noticing that Sharon has some difficulty with a part of the job, Helen makes some helpful suggestions to her. Which of the following is the BEST way for Sharon to respond?

   A Tell Helen to mind her own business.
   B Look for an opportunity to find fault with Helen.
   C Thank Helen for her suggestions and try them out.
   D Just ignore Helen.

12. Kathy's education was aimed at her becoming a computer programmer. However, after completing her training she decided to get married and raise a family. When her child was only two, she decided to take up a job in her specialty, but with very mixed emotions. The BEST conclusion one may draw from this situation is that Kathy

   A gave more importance to her career than family welfare.
   B experienced conflict between her personal values, which we all experience sometimes.
   C felt that she could not let her education go to waste.
   D thought that she would become more assertive by working.

13. Bob heads the sales department of a toy manufacturing company. The company president expresses his concern to Bob about sales being significantly down during the last quarter. Which of the following would be MOST appropriate action for Bob to take?

A Blame his staff for the situation and issue them a warning.
B Supervise them more closely and allow them less freedom of action.
C Carefully analyze the situation cooperatively with his staff to determine the reasons for reduced sales.
D Do nothing because reduced consumer spending is a general problem.

14. To be able to advance on the job which of the following would be LEAST helpful?

A Carry out job duties to the employer's satisfaction.
B Show a willingness to accept more difficult assignments.
C Display leadership qualities.
D Work overtime daily to show one's commitment.

15. Joe is employed as a technician in a Canadian export industry which is beginning to be affected by an economic slowdown in the United States. Fearing production cuts and possible lay-offs, which of the following would be the MOST desirable action for Joe to take?

A Quit and move lock, stock and barrel to Ontario where there are more job opportunities.
B Stay with his company, but start looking for another job.
C Apply to Manpower Canada for retraining to enter another trade.
D Do nothing in the hope that his company's fortune will change for the better.

16. Employees do have certain rights which may be violated by certain actions of their employers. WHICH of the following actions involves violation of those rights?

A An employer requires the employee to observe proper safety regulations.
B An employer denies promotion to a female employee on the grounds that women cannot undertake more stressful roles as well as men.
C An employer requires the employee to observe specified working hours.
D An employer requires the employee to use office or plant facilities in an appropriate manner.

17. Bill is with the customer relations division of GM and has a chance to be promoted to a managerial-level position in his organization. He refuses the promotion as it would interfere with his outdoor recreational interests on the week-ends. Which of the following would BEST describe this situation?

A Getting ahead on the job is still important to Bill.
B Jobs are generally too demanding.
C Bill may be considering recreational industry as an alternative career.
D Jobs often make us think of what is important to us in our lives.

18. Joanne joins a large law firm as a legal secretary but is concerned about how to relate to other secretaries already with the firm, who are older and more experienced. She would find the following helpful EXCEPT

A joining other secretaries at lunch and coffee.
B appearing more knowledgable than she actually is.
C talking to other secretaries about their early work experiences and how they felt.
D offering to assist other secretaries on rush assignments, if she can.

19. Sharon likes to tinker with small appliances and gadgets in the house. She is always eager to try to fix them whenever the need arises. Which of the following do you think had the GREATEST effect in the development of her mechanical interests?

A When still very young, Sharon liked to watch her father work in his basement hobby shop and occasionally assist him.
B In elementary school, Sharon often went on field trips to the Edmonton Space Sciences Centre.
C She likes to watch space and electronic-age shows on the TV.
D Science is her favourite subject in school.

20. Fred is thinking of social work as a career. He is unsure if he would be able to work with people having problems. To explore his feelings, which one of the following activities Fred would NOT find helpful?

A Visiting a convalescent home for the ill and aged.
B Talking to the school counselor on how it feels to know someone who has been through a personal tragedy.
C Raising money for a community housing project.
D Taking a course in psychology on the concerns of the handicapped and underprivileged.

21. Jill perceives herself as an eager, self-confident and likeable person. She likes to initiate ideas on social problems and speaks persuasively. In which of the following work situations would her personal characteristics be MOST helpful?

A Gathering facts and figures on employment trends in Canada and analyzing the data.
B Taking an active part in civic politics and promoting the cause of the elderly.
C Supervising the accounting department of a large bank.
D Writing technical reports for the Alberta Real Estate Board.

22. Tom and Sally graduated from the same high school and both earned scores at the 90th percentile on scholastic aptitude test for university admission. Tom chose to study social work and Sandy planned to go into medicine. Which one of the following probably did NOT influence their different choices?

A Their career goals.
B Their interests and values.
C Sex stereotyping in occupational preference.
D Parental and peer influence.

23. Some personal characteristics can be changed by acquiring experience and learning new skills. Which one of the following would be MOST difficult to change?

A Your ability to communicate well.
B Your tendency to lose your cool under stress.
C Your fear of snakes.
D Your tendency to sunburn easily.

24. Motor coordination (ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed) would be MOST useful in

A working as a telephone operator.
B counselling youth at a summer camp.
C managing a concession stand at Klondike Days.
D serving as a theatre usher.

25. Which of the following occupations is MOST likely to provide independence in work but uncertain income?

A Bank teller
B Commercial artist
C Elementary school teacher
D Neighbourhood grocer

26. Should you be interested in information about a specific occupation such as what the work is like and what kind of education and training is needed to enter that occupation, the KEY source to look into is:

A Horizons
B Encyclopedia Britannica
C Occupational Monographs in your Guidance Centre or Library
D Self-Directed Search

27. In which of the following activities would one need to be MOST aggressive, pursuasive, and self-confident?

A Counselling young adults for career planning.
B Selling vacuum cleaners door-to-door.
C Managing the sales department of a business.
D Experimenting with new techniques in advertising.

28. Which of the following courses would be MOST useful, were you to become a medical laboratory technician?

A physics
B mathematics
C psychology
D chemistry

29. What do the jobs of dentists, garment designers and surveyors have MOST in common?

A Ability to recognize the relationships between objects in space (3-dimension).
B University-level education and training for entry.
C Ability to relate well with other people.
D Uncertain income level.

30. John has heard that there is a growing demand for type-setters in his community. To determine if this is indeed true he should check with which ONE of the following sources?

A School Guidance Information Service (SGIS)
B Local Canada Manpower Centre
C Canadian Classification and Dictionary of Occupations
D Queen's Printers

31. To work as a dental hygienist, what is the level of education/ training GENERALLY needed?

A High school graduation.
B Two years beyond high school.
C Bachelor's degree.
D No formal education requirement - only an apprenticeship.

32. An occupation in which one experiences continuous mental and emotional stress at a HIGH level is that of a

A stenographer.
B medical laboratory technician.
C air traffic controller.
D accountant.

33. Which of the following statements is LEAST specific in describing one's goal?

A Complete an engineering degree before I'm 25.
B Take some courses at Grant MacEwan Community College.
C Jog two miles daily for greater physical fitness.
D Read the literary classics during summer vacations for personal enjoyment.

34. Alan works best independently. He is unhappy with his present job because of close supervision and high work-output expectations. Which of the following actions would be LEAST helpful to him?

A Seek transfer within his organization to another suitable position which offers more flexibility.
B Disregard the employer expectations to show his resentment.
C Consider retraining for a related but more satisfying job.
D Check the want ads for positions more in line with his personal qualities.

35. Andy values challenge in a job. When being interviewed, he asks a number of questions about the job. Which of the following questions would be useful for him to raise EXCEPT

A how much freedom of action will he have on the job?
B are initiative and achievement encouraged in the job?
C what kind of job security is available?
D what greater challenges are in store, assuming success in the present job?

36. Dick wants to enter nursing. He is being discouraged by his parents in considering this option and is particularly under pressure from his peers to change his mind. Which of the following would be the MOST constructive approach for him to deal with this situation?

A He should respect the wishes of his parents and friends and change his plan.
B He should remain firm in his plan and get the counselor to talk to his parents.
C He should enter nursing because it is nice to be unconventional and non-conforming.
D He should explore what kind of training, skills and personal traits are required in nursing and other helping professions before making a final decision.

37. When still young, Sylvia had always wanted to be able to fix cars like her older brother who was in his late teens. Her favourite subject in high school is science and she would like to become an automotive engineer. She would be reassured about her career choice LEAST of all by

A discussing the implications of her choice with her counselor.
B determining whether her abilities correspond with those required for admission to a college engineering program.
C checking to see if she would enjoy auto racing.
D examining alternative careers requiring the same interest and aptitude patterns in which she is strong.

38.

BOSTITCH TEXTRON

An Etobicoke manufacturer of staples & nails requires

MAINTENANCE MECHANICS

STARTING wages $7.04 to $7.49 per hr. depending on experience.
APPLY in person.

BOSTITCH DIVISION OF TEXTRON CANADA LTD.
PHONE 251-3376

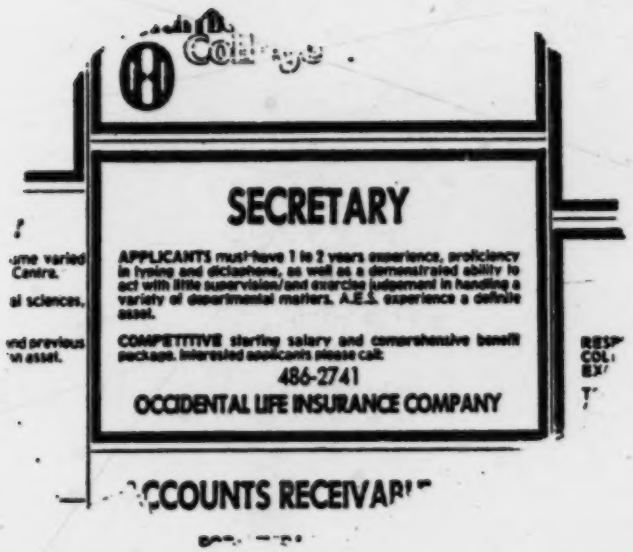
THE TROW GOUP LIMITED

751-2424

Which of the following is NOT indicated in the above ad for maintenance mechanics?

A Wages will be determined by the applicant's experience.
B Bostitch-Textron makes nails and staples.
C The person interested in the job may apply in writing.
D The company has many openings for maintenance mechanics.

39.


SECRETARY
APPLICANTS must have 1 to 2 years experience, proficiency in typing and dictaphone, as well as a demonstrated ability to act with little supervision and exercise judgement in handling a variety of departmental matters. A.E.S. experience a definite asset.
COMPETITIVE starting salary and comprehensive benefit package. Interested applicants please call:
486-2741
OCCIDENTAL LIFE INSURANCE COMPANY

According to the above newspaper ad, the applicant

A may not have the ability to use the dictaphone.
B must have completed some post-secondary education.
C should be able to function without close supervision.
D must have 60 w.p.m. typing skill.

40.

CAN-AM FREIGHT SERVICE
ALLTRANS EXPRESS
We require immediately, experienced sales representatives for our expanding market area. Those individuals applying will be ambitious, results-oriented, self-starting, and have definite career goals. Proven success in sales is essential. Experience in the transportation service industry, not necessary, but a desire to "make it happen" is.
We offer an excellent starting salary, car allowance, expenses, pension plan, health insurance plus other company benefits.
Telephone in confidence:
MR. J. J. JAMES
677-4220
FOR APPOINTMENT
TNT
OSPITALITY INDUSTRY SALES

Based on the above newspaper advertisement which of the following is NOT a necessary requirement for their sales representatives?

A Successful experience in sales
B Definite career goals
C Experience in the transportation service industry
D Being aggressive and eager

Fastest Growing Jobs 1975-1978

Job Category	Percent Increase	Increase in Number	Unemployment 1978	Unemployment June 1979
Social Sciences	28%	31,000	6.6%	6.2%
Managerial, administrative	22%	136,000	2.9%	2.5%
Forestry and Logging	21%	10,000	22.7%	16.0%
Artistic & Recreation	18%	20,000	8.0%	6.2%
Service	14%	169,000	10.4%	9.3%
Religion	12%	3,000	0.0	0.0
Natural Sciences, engineers	9%	29,000	4.2%	2.2%
Transportation Equipment	9%	33,000	7.7%	6.6%
Mining & Quarrying	8%	4,000	10.4%	6.8%
Processing	7%	26,000	8.8%	8.0%
Clerical	6%	100,000	7.6%	7.0%
Materials Handling	5%	11,000	11.7%	10.7%
Product Fabricating operation	5%	39,000	8.2%	6.4%
Medicine and Health	4%	16,000	4.2%	3.5%
Teaching	3%	12,000	4.0%	3.5%
Machining	3%	7,000	7.9%	6.4%
Construction trades	3%	16,000	14.8%	9.5%
Sales	1%	14,000	6.1%	4.8%

Questions 41 and 42 are based on the above chart titled "Fastest Growing Jobs 1975-1978" in Canada.

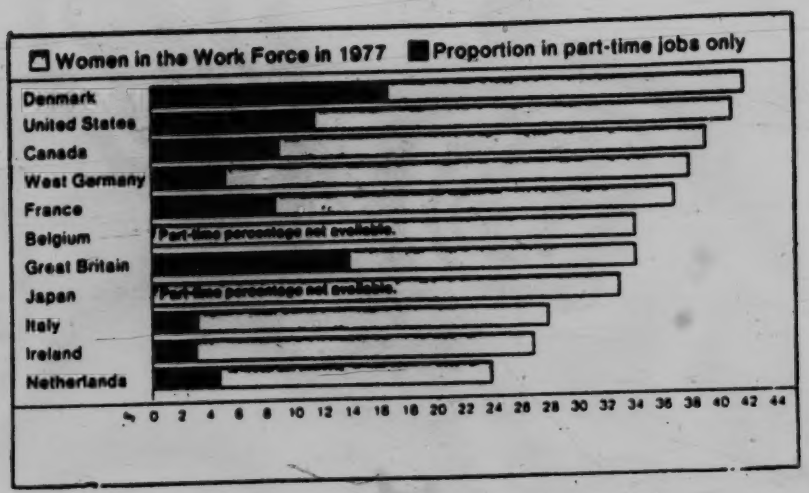
41. One of the fastest growing occupations during 1975-1978 which still had RELATIVELY high unemployment in 1978 was

    A Managerial, administrative
    B Social sciences
    C Service
    D Natural sciences, engineers

42. On the basis of the given data on unemployment and growth in jobs, the MOST justified statement would appear to be that

    A more and more people are turning to religion.
    B forestry and logging are highly seasonal industries.
    C natural sciences-engineering no longer hold good job prospects.
    D construction trades are likely to offer excellent employment opportunities in the coming years.

43.



The above chart provides some interesting information on women in the work force. Which of the following is an ACCURATE statement on the basis of this information?

A The majority of women hold part-time jobs in Canada.
B The proportion of women in part-time jobs only is smallest in Denmark.
C In general, the majority of women hold full-time jobs.
D The proportion of women in part-time jobs only is greater in West Germany than Great Britain.

44. Claire has received three job offers. She is equally interested in (1) high starting salary (2) high prospects for advancement and (3) financial stability of the company. On these three criteria, these jobs compare as follows:

Job	Starting Salary	Advancement Prospects	Financial Stability of Company
1	$13,500	Second Best	Third Best
2	$13,000	Best	Second Best
3	$13,000	Third Best	Best
4	$13,500	Fourth Best	Fourth Best

Which of the three jobs offers the BEST combination of the criteria she has set?

A Job 2
B Job 1
C Job 3
D Job 4

45. If you valued helping those in need, WHICH single or combination of the following activities would satisfy this value?

1 Organizing a recreational programme for the innercity teenage boys
2 Developing new merchandizing techniques
3 Leading the school hockey team
4 Doing voluntary work in a nursing home

A 4 only
B 3 and 4 only
C 1, 3, and 4 only
D 1 and 4 only

46. One would recognize the relative importance of heredity and environment in the development of the following personal characteristics:

1 Facial features
2 Values
3 Height
4 Goals
5 Interests

Which of the following combinations are MOST likely to result from environmental influences?

A 1 and 3 only
B 2 and 4 only
C 2, 3, and 4 only
D 2, 4, and 5 only

47. Which combination of the following skills do you think, are LIKELY to improve with practice and experience?

1 Developing communication skills
2 Solving mathematical problems
3 Becoming more assertive
4 Developing job search skills

A 1 and 2 only
B 3 and 4 only
C 1, 2, 3, and 4
D 1, 3, and 4 only

48. After completing high school Christine would like to enrol in an auto mechanic course in a local community college. However, to determine the suitability of her educational and vocational plans which single or combination of the following steps OUGHT she to undertake?

1 Take a vocational interest inventory
2 Check her rank in her class
3 Take appropriate aptitude tests
4 Check if being an auto mechanic would offer an acceptable life style for her.

A 1 only
B 1 and 3 only
C 2 only
D 1, 3, and 4 only

49. David wants to become a general electrical engineer. Which TWO of the following abilities are MOST ESSENTIAL to his success in that occupation?

1 High general ability
2 Ability to get along with others
3 Spatial aptitude
4 Language skills

A 1 and 2
B 2 and 4
C 1 and 3
D 1 and 4

50. Steve liked building airplane models as a child. Later he developed an interest in flying model planes. His friends are now encouraging him to become a commercial airlines pilot and he, therefore, applies for admission to a flying school. What is POSSIBLY wrong with Steve's decision?

1 He did not seriously examine whether he had the ability.
2 He was not unduly influenced by his friends' advice.
3 He did not consider other occupations in which his interest in planes might be an asset.

A 1 only
B 1 and 3 only
C 1, 2, and 3
D 3 only

Thank you very much

Description of the Career Development Survey Subtests

1. Self-evaluation and development pertains to such things as understanding and accepting individual differences, recognizing individual characteristics and their relationship to career and life goals, and locating and interpreting information about self.
2. Career-awareness includes such skills as relating abilities, values, and societal needs to career selection and recognizing the importance and relevance of school programs to the requirements for occupations.
3. Career decision-making relates to selecting and applying problem-solving techniques to career choices and decisions.
4. Employment-seeking pertains to such things as undertaking systematic career planning, selecting appropriate job-search techniques, describing appropriate appearance and behavior in job interviews, and relating one's abilities and interests to the job one is considering to enter.

5. Work-effectiveness relates to the identification of employer-employee responsibilities to each other, development of effective work habits and interpersonal skills, planning for job change and managing work situations to enhance personal satisfaction.

Note. From "Assessment of Career Skills at the High School Level" by S.B. Khan & S.A. Alvi, 1984, Canadian Counsellor, 19, p.23.

Alberta
EDUCATION

ATTITUDES TOWARD THE WORLD OF WORK

© ALBERTA EDUCATION, 1979

SCHOOL CODE	DEPT USE
0 0 0 0	0 0 0
1 1 1 1	1 1 1
2 2 2 2	2 2 2
3 3 3 3	3 3 3
4 4 4 4	4 4 4
5 5 5 5	5 5 5
6 6 6 6	6 6 6
7 7 7 7	7 7 7
8 8 8 8	8 8 8
9 9 9 9	9 9 9

School Name 158

Program you are in or intend to take:
- ○ Technical and trades
- ○ Academic
- ○ Business
- ○ General
- ○ Undecided
- ○ No main emphasis

Grade (9) (10) (11) (12)

Sex (M) (F)

(1) (2) (3) (4) (5) (6)

What kind of job most interests you as a career?

Do you have a regular part-time job? ○ Yes ○ No

Did you have a full-time job last summer? ○ Yes ○ No

USE HB PENCIL ONLY
MARK ONLY WHERE INDICATED

Following are 75 statements of attitudes toward work (both sides of page). Indicate how much you agree with each one by darkening the corresponding response.

SD = STRONGLY DISAGREE; D = DISAGREE; U = UNDECIDED; A = AGREE; SA = STRONGLY AGREE

1. I would like a job where you can do your own thing.	(SD)	(D)	(U)	(A)	(SA)
2. I would like a job where I could deal with other people.	(SD)	(D)	(U)	(A)	(SA)
3. I would like a job that I can work at for several years.	(SD)	(D)	(U)	(A)	(SA)
4. I would like a job with high pay.	(SD)	(D)	(U)	(A)	(SA)
5. I would like a job that is still mine when other people are being laid off.	(SD)	(D)	(U)	(A)	(SA)
6. Employers are always trying to push their employees to work harder.	(SD)	(D)	(U)	(A)	(SA)
7. To be unemployed is shameful.	(SD)	(D)	(U)	(A)	(SA)
8. In getting a job, it is more important to know somebody, than to know something.	(SD)	(D)	(U)	(A)	(SA)
9. There are jobs available for those who want them.	(SD)	(D)	(U)	(A)	(SA)
10. The first job that I get will likely be interesting.	(SD)	(D)	(U)	(A)	(SA)
11. Most employers think that profits are more important than staff benefits.	(SD)	(D)	(U)	(A)	(SA)
12. Most employers are flexible about the way in which their employees dress, provided that the employees get the job done.	(SD)	(D)	(U)	(A)	(SA)
13. Earning a living should be fun.	(SD)	(D)	(U)	(A)	(SA)
14. A person's major responsibility is to support his or her family.	(SD)	(D)	(U)	(A)	(SA)
15. I would like a job where the harder you work, the higher your salary becomes.	(SD)	(D)	(U)	(A)	(SA)
16. I would like a job which is a challenge to my abilities.	(SD)	(D)	(U)	(A)	(SA)
17. I would like a job where the boss lets you decide how something should be done.	(SD)	(D)	(U)	(A)	(SA)
18. My speaking skills are good enough for me to be successful in the job that I choose.	(SD)	(D)	(U)	(A)	(SA)
19. I think that I will be able to meet the requirements of the job that I choose.	(SD)	(D)	(U)	(A)	(SA)
20. A person should feel a little ashamed for doing a sloppy job.	(SD)	(D)	(U)	(A)	(SA)
21. The more work experience you have, the higher your salary should be.	(SD)	(D)	(U)	(A)	(SA)
22. One of the most important things about a job is to know that you are doing the best you can.	(SD)	(D)	(U)	(A)	(SA)
23. One of the most important things about a job is to be able to keep it as long as you want it.	(SD)	(D)	(U)	(A)	(SA)
24. Few things in life are more important than a big salary.	(SD)	(D)	(U)	(A)	(SA)
25. There is very little that is taught in high school that will be of use on a job.	(SD)	(D)	(U)	(A)	(SA)
26. Most employers don't really want to get to know their employees very well.	(SD)	(D)	(U)	(A)	(SA)
27. I would rather have a job with low pay that I liked, than a job with better pay that I did not like.	(SD)	(D)	(U)	(A)	(SA)

28. Opportunity for growth is more important than making friends on a job.
29. To be a success you must have a job with a high salary.
30. Sometimes a person will have to make sacrifices in order to get ahead in a job.
31. Sometimes you have to choose between having friends, and getting ahead on the job.
32. Schools are pretty good at teaching you about how to look for a job.
33. Nowadays there is not enough work to go around for everyone, so I'll not worry too much about getting a job.
34. I would like to find a job where you have to keep your mind active.
35. I would like a job that allows you to daydream while you work.
36. I would like a job that is interesting.
37. I would like a job where you work in a group with others.
38. I am looking forward to supporting myself by getting a job.
39. I see that a first job is really a stepping stone for a career.
40. If my job got boring, I would quit.
41. I would like a job where you can be your own boss.
42. I would like a job that allows you to make lots of overtime pay.
43. Employers are prepared to pay good wages in order to keep qualified staff happy.
44. Employers seem concerned only with getting as much out of their employees for as little as possible.
45. I would like a job where it is difficult to be fired.
46. I would like a job that has some excitement associated with it.
47. Most employers are prepared to give a fair wage for an honest day's work.
48. Most employers are prepared to reward good effort.
49. To have a job is the duty of every Canadian.
50. Getting a good job is usually a matter of luck — being in the right place at the right time.
51. I would move away from my home town in order to get the job that suited me.
52. I would like to work as part of a team.
53. All people should work.
54. When I finish my education, I'll be able to get the kind of job that I want.
55. Wasting time on a job wouldn't bother me very much.
56. Most jobs are pretty interesting.
57. It's better to hold on to a boring job than to risk changing to a new one.
58. Most employers don't want employees who have minds of their own.
59. One of the most important things about a job is to have the respect of the other people who work at the same place.
60. More than ever before, there is a greater variety of job opportunities.
61. To be successful, it is important to know someone in the right place.
62. Most employers are prepared to give their employees credit for their original ideas.
63. Most jobs are competitive, so you have to do a better job than the next person.
64. It is unlikely that you can get a decent job if you don't join a union or association.
65. Earning a living is the most important thing in adult life.
66. After you have worked for several months, you have every right to quit your job and go on unemployment insurance.
67. I think that I know what the requirements of most jobs are.
68. It's usually possible to get the training needed for a job.
69. A person should try to do a good job whether or not the boss is around.
70. I am prepared to work hard for good wages.
71. When I am ready to go to work, I'll probably have to take what is available rather than what I really want.
72. I feel confident that I will be able to handle the next step in my training.
73. One of the most important things in a job is to have friendly co-workers.
74. I would like to be free to move from one company to another as my interests change.
75. Frankly, when I get a job I don't really want to work very hard.

Description of the Attitude Toward the World of Work Scales

1. Preparation by School: Students scoring high on this scale perceive their preparation for entrance into the world of work as being adequate. School Preparation is seen as appropriately job related.
2. Interest and Variability in Jobs: Students scoring high seek jobs that are interesting, challenging and varied.
3. Diligence: Students scoring high have attitudes favorable to hard work, regardless of supervision.
4. Laziness: Students who have high scores on this scale indicate attitudes of getting as much as possible for as little effort as possible.
5. Job Security: This scale describes students who value job security, often over other characteristics of jobs.
6. Positive Employer Characteristics: Students scoring high on this scale view employers as honest, fair and generally upstanding humans.
7. Independence: Students scoring high on this scale rate the preservation of their own independence above that of other job characteristics.
8. Money: Students scoring high on this scale view salary as being one of the most important determinants of a good job.

9. Ambition: Students scoring high on this scale view striving for success as more important than other considerations like friends.
10. Locus of Control: Students scoring high on this scale view getting and holding a job as being largely a matter outside of their control-luck, knowing the right person, etc.
11. Confidence in Succeeding: High scorers on this scale are confident of their ability of getting a job and being successful.
12. Negative Employer Characteristics: Students scoring high on this scale see employers as greedy and unfair-mostly concerned with looking out for their own interests.
13. Social Relations: Students scoring high on this scale see social relations as being important determiners of job satisfaction. They prefer working with people and being a part of a team.
14. Attitudes Towards Unemployment: Students scoring high on this scale view unemployment as undesirable, even shameful.
15. General Attitudes Towards Earning a Living: Students scoring high on this scale have a positive attitude

toward earning a living, typified by a statement "I am looking forward to earning my own way".

Note. From Attitudes Toward the World of Work (pp.4-5) by T.O. Maguire, E.W. Romaniuk & K.A. MacRury, 1983, Alberta Education: Planning Services Branch.

CAREER DEMOGRAPHICS

Part 1. Background Information Sheet

Please fill out this Background Information Sheet as completely as possible. This sheet will provide important information about the students in the Research Study. All of this information will be treated confidentially.

Age: _____ Sex: [ ] Male [ ] Female

Grade: _____ School: _____

Program:
[ ] Technical & Trades
[ ] Academic
[ ] Business
[ ] General

Grade 12 Average:
[ ] 90-100%
[ ] 75-89%
[ ] 60-74%
[ ] 50-59%
[ ] Below 50%

Parental Employment:
[ ] Both my parents are employed
[ ] Only one parent is employed
[ ] Neither of my parents are employed

Occupation of Mother: Education Level

_____ _____

Occupation of Father: Education Level

_____ _____

Combined Employment Income of Parents (before taxes):

[ ] under $5,000
[ ] $ 5,000 - $ 9,999
[ ] 10,000 - 14,999
[ ] 15,000 - 19,999
[ ] 20,000 - 24,999
[ ] 25,000 - 29,999
[ ] 30,000 - 39,999
[ ] 40,000 - 49,999
[ ] 50,000 and over
[ ] Do not know

Do your parents live on a farm for all or part of the year?

[ ] Yes [ ] No

Do you have to travel to school by bus? [ ] Yes [ ] No

If Yes, how many kilometers is it from your home to the school? _____

Part 2. Student Information Questionnaire

Please use a check mark (✓) to respond to the following items. Choose only one response for each question unless instructions state otherwise. Give your own opinion in responding to each question, and do not think about any question for too long - your first reaction is important. There are no right or wrong answers. Space is provided at the end of the questionnaire for additional comments.

1. What do you plan to do after completing high school?

( ) obtain post-secondary education (e.g. college, university, technical institute, etc.)
( ) work full time
( ) work full time for a few years, and then obtain post-secondary education
( ) work part time
( ) work and go to school part time
( ) be unemployed
( ) other

---

2. What do you plan to do after completing high school?

( ) move away from the community in which I live because educational or employment resources <u>are not</u> available
( ) move away from my community even though educational or employment resources <u>are</u> available locally
( ) remain in my community even though educational or employment resources <u>are not</u> available locally
( ) remain in my community because educational or employment resources <u>are</u> available locally
( ) other

---

3. Have you decided on the program you want to take at a post-secondary institution or the area in which you want to work?

( ) Yes
( ) No

4. Are you satisfied with the amount of career guidance that you are receiving at school?

( ) Yes
( ) No
( ) Undecided

5. How would you decribe the career guidance that you are receiving at school?

( ) excellent
( ) very good
( ) good
( ) fair
( ) poor

Why? _____

_____

6. The following is a list of possible career guidance resources. Please indicate (✓) all resources that are available at your school to assist you in career guidance and planning.

People
( ) Guidance Counsellor
( ) Teacher
( ) Other school personnel (e.g. Principal, Librarian, Secretary, ets.)
( ) Employers or other people in the community who came to your school to discuss their companies or jobs
( ) Other

_____

Materials
( ) Tests and inventories (e.g. Interest and Aptitude Tests, Work Values Inventories, etc.)
( ) Printed informational materials (e.g. booklets, brochures, directories, library books, etc.)
( ) Audio-visual aids (e.g. films, audio-tapes, etc.)
( ) Computer-assisted Programs
( ) Other

_____

Curriculum
( ) Career education course(s) for credit
( ) Career education unit(s) in another course (e.g. Health, English, Social Studies, etc.)
( ) Workshop(s) on career guidance and planning
( ) Field trip(s) to work sites
( ) Work experience
( ) Other

_____

6a. Is there a specific Career Resource Room at your school which contains most of the available career guidance materials?

( ) Yes
( ) No

7. Please indicate all of the resources you used or will use in the future to assist you in career guidance and planning.

People
( ) Guidance Counsellor
( ) Teacher
( ) Other school personnel (e.g. Principal, Librarian, Secretary, etc.)
( ) Employers or other people in the community who came to your school to discuss their companies or jobs.
( ) Other

_____

Materials
( ) Tests and inventories (e.g. Interest and Aptitude Tests, Work Values Inventories, etc.)
( ) Printed informational materials (e.g. booklets, brochures, directories, library books, etc.)
( ) Audio-visual aids (e.g. films, audio-tapes, etc.)
( ) Computer-assisted Programs
( ) Other

_____

Curriculum
( ) Career education course(s) for credit
( ) Career education unit(s) in another course (e.g. Health, English, Social Studies, etc.)
( ) Workshop(s) on career guidance and planning
( ) Field trip(s) to work sites
( ) Work experience
( ) Other

_____

8. Who helped you most with career guidance and planning? (Please (✓) only one item.)

( ) Guidance Counsellor
( ) Teacher
( ) Principal
( ) Other school personnel
( ) Parents
( ) Older brothers and sisters
( ) Other relatives
( ) Resource people in the community
( ) Friends
( ) Other _____

8a. Who else helped you with career guidance and planning? (You may (✓) more than one item.)

( ) Guidance Counsellor
( ) Teacher
( ) Principal
( ) Other school personnel
( ) Parents
( ) Older brothers and sisters
( ) Other relatives
( ) Resource people in the community
( ) Friends
( ) Other _____

9. Does your school offer work experience?

( ) Yes
( ) No
( ) I don't know

10. If work experience was offered, did you do a work experience placement, or will you do one in the future?

( ) Yes
( ) No
( ) Not offered

If Yes, was the amount of work experience you received adequate?

( ) Yes
( ) No
( ) Undecided

Why? _____

_____

Where was your work experience?

( ) In your local community
( ) In a different community, requiring you to live away from home
( ) Both of the above

11. What did you do last summer (relating to employment)?

( ) worked full time locally
( ) worked full time away from your community
( ) worked part time locally
( ) worked part time away from your community
( ) did not work
( ) other

_____

12. What do you do while attending school (relating to employment)?

( ) work part time on a regular basis
( ) do casual work (work for someone else for wages but not on a regular basis)
( ) work part time without pay for a relative who is a member of the same household in a family farm or business
( ) do not work
( ) other

_____

13. Do you feel ready to enter the world of work?

( ) Yes
( ) No
( ) Undecided

Why? _____

_____

_____

14. Are you concerned about youth unemployment?

( ) Yes
( ) No

Would you like to discuss this topic in class?

( ) Yes
( ) No

15. Are you involved in out-of-school activities (e.g. sports, clubs, youth groups, etc.)?

( ) Almost always involved
( ) Often involved
( ) Sometimes involved
( ) Seldom involved
( ) Never involved

16. Are you involved in in-school activities (e.g. intermural sports, students council, clubs, etc.)?

( ) Almost always involved
( ) Often involved
( ) Sometimes involved
( ) Seldom involved
( ) Never involved

17. What kind of job most interests you as a career?

_____

_____

_____

_____

18. Additional Comments:

_____

_____

_____

_____

THANK YOU VERY MUCH FOR YOUR ASSISTANCE!

Judi Laurikainen

Judi Laurikainen

Appendix G

Standardized Introductions and Conclusion

Standardized Introduction to the Study

(to be read by the principal or a classroom teacher before the data is to be collected)

A student from the University of Alberta, Judi Laurikainen, has received permission from (principal) to ask (some of) the grade 12 students in our school to participate in a research study. She is interested in learning more about the career development and work attitudes of grade 12 students in rural and urban areas of Alberta. Judi will be asking you to fill out a Background Information Sheet, a Questionnaire regarding your school guidance services, past work experience and future plans, and two (2) surveys regarding career development and work attitudes. Approximately one and a half hours will be required to collect all of this information. Your participation in this study is voluntary. If you do not wish to participate, please let me know. You will not be asked to sign your name on any of the forms, and all of your responses will be confidential.

Judi will be meeting with you (date) to explain her study and to collect the information from you. Again, if any one of you does not wish to participate, please let me know.

Standardized Introduction

(read by the experimenter immediately before data collection)

Hello. My name is Judi Laurikainen. I am a student from the University of Alberta and I am doing a study on the career development and work attitudes of rural and urban grade 12 students in Alberta. I have received permission from your school principal to ask for your assistance in filling out a Background Information Sheet, a questionnaire regarding your school guidance services, past work experience and future plans, and two (2) surveys regarding career development and work attitudes. Approximately one and a half hours will be required to collect this information.
You are under no obligation to participate in this study. If you do not wish to participate, please let me know. You will not be asked to sign your name on any of the forms, and your answers will be confidential.

(Hand out forms and pencils)

Please complete the Career Development Survey first, then the Attitudes Toward the World of Work survey, and then the Background Information Sheet and the Questionnaire. The instructions for each survey and questionnaire are written at the top of the page. Please do not complete the Personal Information sections on the NCS computerized

scoring sheets (point to the relevant sections) - this information will be collected on a separate Background Information Sheet. Please do not sign your name on any of the forms.

If you have any questions about any of the instructions, please ask for assistance. Thank you for your help.

Standardized Conclusion

(read after data had been collected)

Thank you very much for your assistance. A copy of my completed research report will be sent to your school principal, hopefully by the end of May, 1986. You may contact him/her if you are interested in reading about the results of the study.

Again, thank you for your help and cooperation!

10145 84 Ave. #006
Edmonton, Alberta.
T6E 2G8

November 6, 1985

Sar B. Khan
Department of Measurement,
Evaluation, and Computer
Applications,
The Ontario Institute for
Studies in Education,
252 Bloor St. W.
Toronto, Ont.
M5S 1V6

Dear Dr. Khan:

Thank you very much for your prompt response to my request for a copy of the Career Development Survey , and the accompanying answer keys. I would like to request permission to use the Career Development Survey in my research with rural and urban high school students in Alberta. Some of the company names and guidance information services cited in a few of the items will be changed to reflect the environment in Alberta. I would be happy to forward a copy of the revised form of the survey to you if I do use it in my research.

I look forward to hearing from you.

Sincerely,

J Laurikainen

Judi Laurikainen
Masters Student
University of Alberta
Dept. of Educational Psychology

You are allowed to use the instrument with whatever changes you consider necessary. We will be interested in receiving a copy of the modified version and a copy of your thesis if possible.

Sar Khan